#### 1475/2682 FIGURE 1337

 ${\tt GTCAAG} \underline{\textbf{ATG}} \texttt{GCGGGAGCAGCTACCCAGGCTTCCCTGGAGTCGGCCCCACGGATCATGCGGCTGGTGGCCGAATGC}$ AGCCGCTCCAGGGCCCGGGCAGCCTGTGGCTGCCGCATGGGACAGTGGCCACTCCTGTGTTCATGCCAGTG GGCACGCAGGCCACCATGAAGGGCATCACGACCGAACAGCTGGACGCTCTGGGTTGCCGCATCTGCCTGGGCAAT ACCTACCATCTGGGTCTAAGGCCGGGACCCGAGCTGATCCAGAAAGCCAACGGTCTCCACGGCTTCATGAATTGG CCTCATAATCTGCTAACGGACAGCGGCGGTTTCCAGATGGTGTCGCTGGTGTCTCTGTCCGAGGTGACGGAGGAG GGCGTCCGCTTCCGCTCCCCCTACGACGGCAATGAGACCCTGCTGAGCCCGGAGAAATCCGTGCAGATCCAGAAT GCGCTGGGCTCGGACATCATCATGCAGCTGGACGACGTGGTTAGCAGTACTGTGACTGGGCCACGTGTGGAGGAG GCCATGTACAGGTCAATCCGCTGGCTGGACCGGTGCATTGCAGCCCATCAGCGGCCGGACAAGCAGAACCTCTTC GCCATTATCCAGGGTGGGCTGGACGCAGATCTCCGGGCCACCTGCCTTGAAGAGATGACCAAGCGAGACGTGCCT GGCTTCGCCATCGGGGGCCTGAGCGGGGGTGAGAGCAAGTCGCAGTTCTGGCGGATGGTGGCGCTGAGCACCTCT CGGCTGCCGAAGGACAAGCCCCGATATCTGATGGGGGTTGGCTATGCCACTGATCTGGTAGTCTGCGTGGCTCTT CTGCAGTTGAGGAAGAAGGTGTTTGAGAAGGACTTCGGCCCCATAGACCCGGAGTGCACCTGCCCCACGTGCCAA AAGCACAGCCGCGCCTTCCTGCACGCACTGCTGCACAGTGACAACACGGCCGCGCTGCACCACACGCTCACGGTCCAC AACATCGCCTACCAGCTGCAGCTCATGAGCGCCGTCCGCACCAGCATCGTGGAGAAGCGCTTCCCGGACTTCGTG  $\tt CGGGACTTCATGGGCGCCATGTACGGGGATCCCACCTCTGTCCCACCTGGGCCACTGACGCTCTGGCCTCTGTG$ AGGATTCCTTTTTGAAAGGTTTTTTTTTTTTTTTATTGTAACTT

#### 1476/2682 FIGURE 1338

MAGAATQASLESAPRIMRLVAECSRSRARAGELWLPHGTVATPVFMPVGTQATMKGITTEQLDALGCRICLGNTY HLGLRPGPELIQKANGLHGFMNWPHNLLTDSGGFQMVSLVSLSEVTEEGVRFRSPYDGNETLLSPEKSVQIQNAL GSDIIMQLDDVVSSTVTGPRVEEAMYRSIRWLDRCIAAHQRPDKQNLFAIIQGGLDADLRATCLEEMTKRDVPGF AIGGLSGGESKSQFWRMVALSTSRLPKDKPRYLMGVGYATDLVVCVALGCDMFDCVFPTRTARFGSALVPTGNLQ LRKKVFEKDFGPIDPECTCPTCQKHSRAFLHALLHSDNTAALHHLTVHNIAYQLQLMSAVRTSIVEKRFPDFVRD FMGAMYGDPTLCPTWATDALASVGITLG

#### 1477/2682 FIGURE 1339

 $\underline{\textbf{ATG}} \texttt{GCCCTGCGCAAGGAACTGCTCAAGTCCATCTGGTACGCCTTTACCGCGCTGGACGTGGAAAGAGTGGCAAA}$ GTCTCCAAGTCCCAGCTCAAGGTGCTGTCCCACAACCTGTACACGGTCCTGCACATCCCCCATGACCCCGTGGCC ATCCTGGACAAGGTGGAGGAGGGGGCTTTTGTTAAAGAGCACTTTGATGAGCTGTGCTGGACGCCTGACGGCCAAG AAGAACTATCGGGCAGATAGCAACGGGAACAGTATGCTCTCCAATCAGGATGCCTTCCGCCTCTGGTGCCTCTTC AACTTCCTGTCTGAGGACAAGTACCCTCTGATCATGGTTCCTGATGAGGTGGAATACCTGCTGAAAAAGGTACTC ACCCTCAGCATGGCCATCCACGAGGTCTACCAGGAGCTCATCCAAGATGTCCTGAAGCAGGGCTACCTGTGGAAG  $\tt CGAGGGCACCTGAGAAGGAACTGGGCCGAACGCTGGTTCCAGCTGCAGCCCAGCTGCCTCTGCTACTTTGGGAGT$ GAAGAGTGCAAAGAGAAAAGGGGCATTATCCCGCTGGATGCACACTGCTGCGTGGAGGTGCTGCCAGACCGCGAC GGAAAGCGCTGCATGTTCTGTGTGAAGACAGCCAACCGCACGTATGAGATGAGCGCCTCAGACACGCGCCAGCGC CAGGAGTGGACAGCTGCCATCCAGATGGCGATCCGGCTGCAGGCCGAGGGGAAGACGTCCCTACACAAGGACCTG CAGCGCATCAAGGAGCTGGAGGAGATGCAGCAGCGGTTGCAGGAGGCCCTGCAACTAGAGGTGAAAGCTCGGCGA GATGAAGAATCTGTGCGAATCGCTCAGACCAGACTGCTGGAAGAGGGGAAGAAGAAGCTGAAGCAGTTGATGCAG CAGAGCCGCTCCCTGCAGCAGGCCCAGCAGCAGCTGGAGGAGGTGCGGCAGAACCGGCAGAGGGCTGACGAGGAT GTGGAGGCTGCCCAGAGAAAACTGCGCCAGGCCAGCACCAACGTGAAACACTGGAATGTCCAGATGAACCGGCTG ATGCATCCAATTGAGCCTGGAGATAAGCGTCCGGTCACCAGCAGCTCCTTCTCAGGCTTCCAGCCCCCTCTGCTT GCCCACCGTGACTCCTCAAAGCGCCTGACCCGCTGGGGATCCCAGGGCAACAGGACCCCCTCGCCCAACAGC AATGAGCAGCAGAAGTCCCTCAATGGTGGGGATGAGGCTCCTGCCCCGGCTTCCACCCCTCAGGAAGATAAACTG GATCCAGCACCAGAAAAT<u>TAG</u>A

#### 1478/2682 FIGURE 1340

MALRKELLKSIWYAFTALDVEKSGKVSKSQLKVLSHNLYTVLHIPHDPVALEEHFRDDDDGPVSSQGYMPYLNKY
ILDKVEEGAFVKEHFDELCWTLTAKKNYRADSNGNSMLSNQDAFRLWCLFNFLSEDKYPLIMVPDEVEYLLKKVL
SSMSLEVSLGELEELLAQEAQVAQTTGGLSVWQFLELFNSGRCLRGVGRDTLSMAIHEVYQELIQDVLKQGYLWK
RGHLRRNWAERWFQLQPSCLCYFGSEECKEKRGIIPLDAHCCVEVLPDRDGKRCMFCVKTANRTYEMSASDTRQR
QEWTAAIQMAIRLQAEGKTSLHKDLKQKRREQREQRERRRAAKEEELLRLQQLQEEKERKLQELELLQEAQRQAE
RLLQEEEERRRSQHRELQQALEGQLREAEQARASMQAEMELKEEEAARQRQRIKELEEMQQRLQEALQLEVKARR
DEESVRIAQTRLLEEEEEKLKQLMQLKEEQERYIERAQQEKEELQQEMAQQSRSLQQAQQQLEEVRQNRQRADED
VEAAQRKLRQASTNVKHWNVQMNRLMHPIEPGDKRPVTSSSFSGFQPPLLAHRDSSLKRLTRWGSQGNRTPSPNS
NEQQKSLNGGDEAPAPASTPQEDKLDPAPEN

#### 1479/2682 FIGURE 1341

TCAAACACATTTCAAAGCTTCAGGATCCTGAAAGGTTTTGCTCTACTTCCTGAAGACCTGAACACCGCTCCCATA  $\texttt{AAGCC} \underline{\textbf{ATG}} \texttt{GCTTGCCTTGGATTTCAGCGGCACAAGGCTCAGCTGAACCTGGCTACCAGGACCTGGCCCTGCACTC}$ TCCTGTTTTTTCTCTTCATCCCTGTCTTCTGCAAAGCAATGCACGTGGCCCAGCCTGCTGTGGTACTGGCCA GCAGCCGAGGCATCGCCAGCTTTGTGTGTGAGTATGCATCTCCAGGCAAAGCCACTGAGGTCCGGGTGACAGTGC TTCGGCAGGCTGACAGCCAGGTGACTGAAGTCTGTGCGGCAACCTACATGATGGGGAATGAGTTGACCTTCCTAG ATGATTCCATCTGCACGGGCACCTCCAGTGGAAATCAAGTGAACCTCACTATCCAAGGACTGAGGGCCATGGACA CGGGACTCTACATCTGCAAGGTGGAGCTCATGTACCCACCGCCATACTACCTGGGCATAGGCAACGGAACCCAGA TGTTTTTTTATAGCTTTCTCCTCACAGCTGTTTCTTTGAGCAAAATGCTAAAGAAAAGCCCTCTTACAACAG  ${\tt GGGTCTATGTGAAAATGCCCCCAACAGAGCCAGAATGTGAAAAGCAATTTCAGCCTTATTTTATTCCCATCAAT{\bf T}}$ <u>GA</u>GAAACCATTATGAAGAAGAGAGTCCATATTTCAATTTCCAAGAGCTGAGGCAATTCTAACTTTTTTGCTATCC AGCTATTTTTATTTGTTGTGCATTTGGGGGGAATTCATCTCTCTTTAATATAAAGTTGGATGCGGAACCCAAAT TACGTGTACTACAATTTAAAGCAAAGGAGTAGAAAGACAGAGCTGGGATGTTTCTGTCACATCAGCTCCACTTTC AGTGAAAGCATCACTTGGGATTAATATGGGGATGCAGCATTATGATGTGGGTCAAGGAATTAAGTTAGGGAATGG CGTTTATAGCCGAAATGATCTTTTCAAGTTAAATTTTATGCCTTTTATTTCTTAAACAAATGTATGATTACATCA GTTTTTGTGTATTTGTTAATGGTTTGAATATAAACACTATATGGCAGTGTCTTTCCACCTTGGGTCCCAGGGAAG TTTTGTGGAGGAGCTCAGGACACTAATACACCAGGTAGAACACAAGGTCATTTGCTAACTAGCTTGGAAACTGGA TGAGGTCATAGCAGTGCTTGATTGCGTGGAATTGTGCTGAGTTGGTGTTGACATGTGCTTTGGGGCTTTTACACC AGTTCCTTTCAATGGTTTGCAAGGAAGCCACAGCTGGTGGTATCTGAGTTGACAGAACACTGTCTTGAAG ACAATGGCTTACTCCAGGAGACCCACAGGTATGACCTTCTAGGAAGCTCCAGTTCGATGGGCCCAATTCTTACAA ACATGTGGTTAATGCCATGGACAGAAGAAGGCAGCAGGTGGCAGAATGGGGTGCATGAAGGTTTCTGAAAATTAA 

## 1480/2682 FIGURE 1342

MACLGFQRHKAQLNLATRTWPCTLLFFLLFIPVFCKAMHVAQPAVVLASSRGIASFVCEYASPGKATEVRVTVLR QADSQVTEVCAATYMMGNELTFLDDSICTGTSSGNQVNLTIQGLRAMDTGLYICKVELMYPPPYYLGIGNGTQIY VIDPEPCPDSDFLLWILAAVSSGLFFYSFLLTAVSLSKMLKKRSPLTTGVYVKMPPTEPECEKQFQPYFIPIN

## 1481/2682 FIGURE 1343

## 1482/2682 FIGURE 1344

 ${\tt MAASAARGAAALRRSINQPVAFVRRIPWTAASSQLKEHFAQFGHVRRCILPFDKETGFHRGLGWVQFSSEEGLRN} \\ {\tt ALQQENHIIDGVKVQVHTRRPKLPQTSDDEKKDF}$ 

#### 1483/2682 FIGURE 1345

## 1484/2682 FIGURE 1346

MLRVAWRTLSLIRTRAVTQVLVPGLPGGGSAKFPFNQWGLQPRSLLLQAARGYVVRKPAQSRLDDDPPPSTLLKD YQNVPGIEKVDDVVKRLLSLEMANKKEMLKIKQEQFMKKIVANPEDTRSLEARIIALSVKIRSYEEHLEKHRKDK AHKRYLLMSIDQRKKMLKNLRNTNYDVFEKICWGLGIEYTFPPLYYRRAHRRFVTKKALCIRVFQETQKLKKRRR ALKAAAAAQKQAKRRNPDSPAKAIPKTLKDSQ

## 1485/2682 FIGURE 1347

## 1486/2682 FIGURE 1348

 ${\tt MAGLMTIVTSLLFLGVCAHHIIPTGSVVIPSPCCMFFVSKRIPENRVVSYQLSSRSTCLKAGVIFTTKKGQQFCGDPKQEWVQRYMKNLDAKQKKASPRARAVAVKGPVQRYPGNQTTC}$ 

#### 1487/2682 FIGURE 1349A

GGGGGCAGAAAAGGGGGCGGCGGACTCGGCTTGTTGTGTTGCTGCCTGAGTGCCGGAGACGGTCCTGCTGCTGCC GCAGTCCTGCCAGCTGTCCGACGATGTCGTCCCACCTAGTCGAGCCGCCGCCGCCCCTGCACAACAATAACAACA GCAGCAATGGCAATGATAATGGCAATGGGAAAAATGGGGGGCTGGAACACGTACCATCCTCATCCTCATCCACA ATGGAGACATGGAGAAGATTCTTTTGGATGCACAACATGAATCAGGACAGAGTAGTTCCAGAGGCAGTTCTCACT GTGACAGCCCTTCGCCACAAGAAGATGGGCAGATCATGTTTGATGTGGAAATGCACACCAGCAGGGACCATAGCT CTCAGTCAGAAGAAGAAGTTGTAGAAGGAGAAGGAAGTCGAGGCTTTGAAGAAAAGTGCGGACTGGGTATCAG ACTGGTCCAGTAGACCCGAAAACATTCCACCCAAGGAGTTCCACTTCAGACACCCTAAACGTTCTGTGTCTTTAA GCATGAGGAAAAGTGGAGCCATGAAGAAAGGGGGTATTTTCTCCGCAGAATTTCTGAAGGTGTTCATTCCATCTC TCTTCCTTTCTCATGTTTTGGCTTTGGGGCTAGGCATCTATATTGGAAAGCGACTGAGCACACCCTCTGCCAGCA CCTACTGAGGGAAAGGCCCCTGGAAATGCGTGTGACCTGTGAAGTGGTGTATTGTCACAGTAGCTTATTT GAACTTGAGACCATTGTAAGCATGACCCAACCTACCACCTGTTTTTACATATCCAATTCCAGTAACTCTCAAAT TCAATATTTTATTCAAACTCTGTTGAGGCATTTTACTAACCTTATACCCTTTTTGGCCTGAAGACATTTTAGAAT TTCCTAACAGAGTTTACTGTTGTTTAGAAATTTGCAAGGGCTTCTTTTCCGCAAATGCCACCAGCAGATTATAAT TTGCAACATAACTACCATCTCTCTTTAAAACGAGATCAGGTTAGCAAATGATGTAAAAGAAGCTTTATTGTCTA GTTGTTTTTTTCCCCCAAGACAAAGGCAAGTTTCCCTAAGTTTGAGTTGATAGTTATTAAAAAGAAAACAAAAC AAAAAAAAAGGCAAGGCACAACAAAAAAATATCCTGGGCAATAAAAAAATATTTTAAACCAGCTTTGGAGCCA CTTTTTTGTCTAAGCCTCCTAATAGCGTCTTTTAATTTATAGGAGGCAAACTGTATAAATGATAGGTATGAAATA GAATAAGAAGTAAAATACATCAGCAGATTTTCATACTAGTATGTTGTAATGCTGTCTTTTCTATGGTGTAGAATC TTTCTTTCTGATAAGGAACGTCTCAGGCTTAGAAATATATGAAATTGCTTTTTGAGATTTTTGCGTGTGTTTTG TTTTTTTTCTCTAAGAAGAGGCTTTGGAATGAGTTCCAATTTGTGATGTTAATACAGGCTTCTTGTTTTAGGAAG CATCACCTATACTCTGAAGCCTTTAAACTCTGAAGAGAATTGTTTCAGAGTTATTCCAAGCACTTGTGCAACTTG GAAAAACAGACTTGGGTTGTGGGAACAGTTGACAGCGTTCTGAAAAGATGCCATTTGTTTCCTTCTGATCTCTCA  $\tt CTGAATAATGTTTACTGTACAGTCTTCCCAAGGTGATTCCTGCGACTGCAGGCACTGGTCATTTTCTCATGTAGC$ ATTTCTAAAATGTGAAGCTTTAGGACCAAATTGTTAGAAAGCATCAGGATGACCAGTTATCTCGAGTAGATTTTC TAGACATTGATATTGACTATTTAGAGAACCGTTGTTAATTTTAAAACTAGCAATCTATAAAGTGCACCAGGTCAA AAATTGATGTGTTATAGTGGAAAATAACATATAGATTAAACAAAATTTTTATCTTTTTTCAAGAATATAGCTGGC AATTTTGGACATCTTTTCCTAGACCATGTTTCTGTCTTACTCTTAAACCTGGTAACACTTGATTTGCCTTCTAT AACCTATTTATTTCAAGTGTTCATATTTGAATTTCTTTGGGAAGAAAGTAAATCTGATGGCTCACTGATTTTTGA AAAGCCTGAATAAAATTGGAAAGACTGGAAAGTTAGGAGAACTGACTAGCTAAACTGCTACAGTATGCAATTTCT ATTACAATTGGTATTACAGGGGGGAAAAGTAAAATTACACTTTACCTGAAAGTGACTTCTTACAGCTAGTGCATT GTTAAAAAGAACATAGTGTTGCCCTTTTTCTTAAAGCATCAGTGAAATTATGGAAAATTACTTAAAACGTGAAT ACTGCTACACCCAGATTTGTGTTGAACGAAAACATTGTGGTTTGGAAAGGAGAATTCAACAATTAATAGTTGAAA TGTTTGATGAAAACTGGCTCAAGATGTTTGTAAATAGAATCAAGAGCAAAACTGCACAAACTTGCACATTGGAAA GTGCAACAAGTTCCCGTGATTGCAGTAAAAATATTTACTATTCTAAAAAAATGAGAATTGAAGACTTAGCCAGTC AGATAAGTTTTTTCATGAACCCGTTGTGGAAATTATTGGAATTAACTGAGCCAAAGTGATTATGCATTCTTCATC TATTTTAGTTAGCACTTTGTATCGTTATATACAGTTTACAATACATGTATAACTTGTAGCTATAAACATTTTGTG CCATTAAAGCTCTCACAAAACTTTTCCTGTCAGTATATCATTTTTCTGTCGCACCTGTTGCCTGGGAGTTTCAGG CGATGAGGCCTCCTCGCCTACACACAGCCTTCCAGTCATCTGGCTTCCCCAGCAGTGGAGTTCCTAACAGTGCTC

## 1488/2682 FIGURE 1349B

## 1489/2682 FIGURE 1350

GQKRGRRTRLVVLLPECRRRSCCCRSPASCPTMSSHLVEPPPPLHNNNNNCEENEQSLPPPAGLNSSWVELPMNS SNGNDNGNGKNGGLEHVPSSSSIHNGDMEKILLDAQHESGQSSSRGSSHCDSPSPQEDGQIMFDVEMHTSRDHSS QSEEEVVEGEKEVEALKKSADWVSDWSSRPENIPPKEFHFRHPKRSVSLSMRKSGAMKKGGIFSAEFLKVFIPSL FLSHVLALGLGIYIGKRLSTPSASTY

#### 1490/2682 FIGURE 1351

GCGGCGGACTCGGCTTGTTGTGTTGCTGCCTGAGTGCCGGAGACGGTCCTGCTGCTGCCGCAGTCCTGCCAGCTG TCCGACG<u>ATG</u>TCGTCCCACCTAGTCGAGCCGCCGCCGCCCCTGCACAACAACAACAACAACTGCGAGGAAAATGA GCAGTCTCTGCCCCGGCCGGCCGGCCTCAACAGTTCCTGGGTGGAGCTACCCATGAACAGCAGCAATGGCAATGA GATTCTTTTGGATGCACAACATGAATCAGGACAGAGTAGTTCCAGAGGCAGTTCTCACTGTGACAGCCCTTCGCC AGTTGTAGAAGGAGGAGGAGTCGAGGCTTTGAAGAAAAGTGCGGACTGGGTATCAGACTGGTCCAGTAGACC CGAAAACATTCCACCCAAGGAGTTCCACTTCAGACACCCTAAACGTTCTGTGTCTTTAAGCATGAGGAAAAGTGG AGCCATGAAGAAAGGGGGTATTTTCTCCGCAGAATTTCTGAAGGTGTTCATTCCATCTCTTCTCTTCTCATGT  $\tt TTTGGCTTTGGGGCTAGGCATCTATATTGGAAAGCGACTGAGCACCCTCTGCCAGCACCTAC \textbf{\textit{TGA}} GGGAAAGG$ AAAAGCCCCTGGAAATGCGTGTGACCTGTGAAGTGGTGTATTGTCACAGTAGCTTATTTGAACTTGAGACCATTG TAAGCATGACCCAACCTACCACCTGTTTTTACATATCCAATTCCAGTAACCCTCAAATTCAATATTTTATTCAA ACTCTGTTGAGGCATTTTACTAACCTTATACCCTTTTTGGCCTGAAGACATTTTAGAATTTCCTAACAGAGTTTA  $\verb|CTGTTGTTTAGAAATTTGCAAGGGCTTCTTTTCCGCAAATGCCACCAGCAGATTATAATTTTGTCGGCAATGCTA|\\$ ATCTCTCTCTTAAAACGAGATCAGGTTAGCAAATGATGTAAAAGAAGCTTTATTGTCTAGTTGTTTTTTTCCCC 

## 1491/2682 FIGURE 1352

MSSHLVEPPPPLHNNNNNCEENEQSLPPPAGLNSSWVELPMNSSNGNDNGNGKNGGLEHVPSSSSIHNGDMEKIL LDAQHESGQSSSRGSSHCDSPSPQEDGQIMFDVEMHTSRDHSSQSEEEVVEGEKEVEALKKSADWVSDWSSRPEN IPPKEFHFRHPKRSVSLSMRKSGAMKKGGIFSAEFLKVFIPSLFLSHVLALGLGIYIGKRLSTPSASTY

## FIGURE 1353

GGGTGGAGTGTAGGCCAGGGGGTTGGCGGTGCCGTGTCATGGAGGCTCAGTCTCTGAGCAGCCATTGAAGGGGAA TGTGTGGACAAGGAGGTGGGGCAGCTGAGTTAGAGTCCCAACTCTTGGACTCCATTTGCTATTCTCTTTCT AATTTTGGGTTGGGGGTATTGGGGAAGGCAGGAAAGGGAAAAGGAGAGTAGTAGCTGAAGAGCAAGAGGAGGACA TGGAGATGAAGAAGATTAACCTGGAGTTAAGGAACAGATCCCCGGAGGAGGTGACAGAGTTAGTCCTTGATA ATTGCCTGTGTGTCAATGGGGAAATTGAAGGCCTGAATGATACTTTCAAAGAACTAGAATTTCTGAGTATGGCTA AAGATCTCAGTACAGTAGAAGCTCTGCAAAATCTTAAAAATTTGAAAAGTCTTGACCTGTTTAACTGTGAGATCA CAAACCTGGAAGATTATAGAGAAAGTATTTTTGAACTACTGCAGCAAATCACATACTTAGATGGATTTGATCAGG AGGATAATGAAGCGCCGGACTCTGAAGAGGAGGATGATGAGGATGGCGATGAAGATGATGAAGAGGAAGAGGAAAA ATGAAGCTGGTCCACCGGAAGGATATGAGGAAGAGGAGGAGGAGGAAGAGGAGGATGAGGATGAAGGATGAAG ATGAAGATGAAGCAGGTTCAGAGTTGGGAGAGGGAGAAGAGGGAAGTGGGCCTCTCATACTTAATGAAAGAAGAAA GAGGGGAGAAGAGGAAACGAGATGCTGAAGACGATGGAGAGGAAGAAGATGAC**TAG**ATCATTCTAAGACCAGATT CTCTAATGTTTCTGGGTGTGCAATAGAGTGATCACATCTTTGTTTCTTCATGTACGATAGCTATCCCTACAGAAG ATAATGTGTAACTTTTTATAGGAAAAGTGTGGTTTTACTATTTTTGCCTTATCATTCCAAATAAGAACTAGTCTG TTAATTTTTAAATTCAAGCTTACTGTATTAGTCATTTTTAGCCCATAATTAAAACATGATCACTTTTACACAGG TGTAGTATGGTGCATTTCATTCTTATTTATAAATTAACTGAAATTACAGTTTGCTATAATATAAAATGACAATA GTCTCTTGAGTGGTAAGTTGGTTATTTTTTTAGAGGTGATCCAGGAATCTTTAGTTTGAAGGCAGTTACCNNNNN NNNNNNNNNNNNNNNNNNGACTAAGAGTGTTTGGTTGCTTTTTTGTCACAAGTAACTTGGAAAATAGAAGCAGAAT AGTAAAGGTTCTATTCAGCAACATAGTTCATGGATTTTGTGGAGGTTCTATTCAGTAATATGGTTCATGGATTTA GTGGTGACTGATAAGATTTTATTTTTGAAGGAAAAATTGCTTATACTAAGTCCAGAGACATGCAGGTGAGCCCTT AACCCAGGAAAACCTTTAGTCTTATACCTCAACTACCTTTCAGTCCTGTCTGGGTTTTAAATAAGTGAAGTAGAA GAAATTGAGTATTTTCTGACATAAGAATATATTATCAATACAGTTTTATGCAGTAAGCTCTCCTTACCATAAATG TTAGTGTTCCTCAAAAGTCGGAACAATTGCCTGTTGATATAATAAGACATTAAAGTCAAATTTTAATGTTGG CCTCTCAAATGATTTGGATACCACTCTGCAAAGTATTTCTAACCTTTAATTCCCAGTTTTAAAACAGATATAATA ATAGCATTTAATTGGAATATACTAGGCAGCTGGAAAAGTATTTGAAACTAAATTGACATTAAAATTAAGATTTGT ATAAAATATAATGAGTATACAAGTATATCTCCTCTTTTGCTATGGAGGCTCCATGTTCAAGGCAATGGCTTTTTA AATCTTGGCTATCTAAAATTTTTTCCCTTTGTTTTGAATATTTGTAAGTTTTTAAGAAGTTAGTGTCAGCAAATT AATTGAAGTTATGCTTCTATACTGGGACATATTTAAATACTGAGTATAGTACTGCTGCTACTGCTTCTACAATGT AAAATGTATGACTTGGTGTTTTTAAAGTAAAAATTATGATGTTACTTGTGGAGAAACTAAAAATGTTGTACAACTG ACCGAAAGAAAACCCTTGGGGATAAGTTTAGTGAGGGGATTGGAATCCCCAAAAAGATAACATTTTTCTTCTGCT TTTAAAAACTGAAATTCCCTGTTCTAGTTCCTAACAATTCTCATTACATACTATGCCAGATTACAAAATACTTAT TTGTGTTAAGTTCCTCAAGAATCTCCTTAAAAACTTTGAAGTTAATACTTTTGTGCAACTGTGTTTTTGAATAAAG CCATGACAGTGTTAAAAACAAACAAAAAATTTGCAGTACTCCTGATTATTCTTTTATTGTTTTTTGACTGTTCCC ATGATTAAC

## 1493/2682 FIGURE 1354

MEMKKKINLELRNRSPEEVTELVLDNCLCVNGEIEGLNDTFKELEFLSMANVELSSLARLPSLNKLRKLELSDNI ISGGLEVLAEKCPNLTYLNLSGNKIKDLSTVEALQNLKNLKSLDLFNCEITNLEDYRESIFELLQQITYLDGFDQ EDNEAPDSEEEDDEDGDEDEEEEENEAGPPEGYEEEEEEEEEEEDEDEDEDEAGSELGEGEEEVGLSYLMKEE IQDEEDYDDYVEEGEEEEEEEGGLRGEKRKRDAEDDGEEEDD

#### 1494/2682 FIGURE 1355A

ACCGCCCACACAGACCGCGTTCCCCGAGGAAACCGGCCGCCCACGCCCGGAGCATCCTCCCCTGTTGAGCGGG  $\tt CGCTGACGGACCCGGCGGC\underline{ATG}ATGCGGCTGCGAGGCTCGGGGATGCTGCGGGGACCTGCTCCTGCGGTCGCCCGC$ CGGCGTGAGCGXGACTCTGCGGCGGGCACAGCCCTTGGTCACCCTGTGCCGGCGTCCCCGAGGCGGGGGACGGCC GCGGGGCCTGTCCAGCTCTCCTTCGGAGATCTTGCAGGAGCTGGGCAAGGGGAGCACGCATCCCCAGCCCGGGGT GTCGCCACCCGCTGCCCCGGCGCGCCCCCAAGGACGGCCCCGGGGAGACGGACGCGTTTGGCAACAGCGA GGGCAAAGAGCTGGTGGCCTCAGGTGAAAACAAAATAAAACAGGGTCTGTTACCTAGCTTGGAAGATTTGCTGTT CTATACAATTGCTGAAGGACAAGAGAAAATACCTGTTCATAAATTTATTACAGCACTCAAATCTACAGGATTGCG AACGTCTGATCCCAGGTTGAAAGAGTGTATGGATATGTTAAGATTAACTCTTCAAACAACATCAGATGGTGTCAT GCTAGACAAAGATCTTTTTAAAAAATGTGTTCAGAGCAACATTGTTTTGTTGACACAAGCATTTAGAAGAAAGTT TGTGATTCCTGACTTTATGTCTTTTACCTCACACATTGATGAGTTATATGAAAGTGCTAAAAAGCAGTCTGGAGG AAAGGTTGCAGATTATATTCCTCAACTGGCCAAATTCAGTCCCGATTTGTGGGGTGTGTCTGTTTGTACAGCAGA TGGACAGAGGCATTCTACTGGAGATACCAAAGTTCCCTTCTGTCTTCAGTCCTGTGTAAAACCTTTGAAATATGC CATTGCTGTTAATGATCTTGGAACTGAATATGTGCATCGATATGTTGGAAAAGAGCCGAGTGGACTAAGATTCAA CAAACTATTTTTGAATGAAGATGATAAACCACATAATCCTATGGTAAATGCTGGAGCAATTGTTGTGACTTCACT **AATAAAGCAAGGAGTAAATAATGCTGAAAAATTTGACTATGTCATGCAGTTTTTGAATAAGATGGCTGGTAATGA** ATATGTTGGATTCAGTAATGCAACGTTTCAGTCTGAAAGAGAAAGTGGAGATCGAAATTTTGCAATAGGATATTA CATTGAAGTGACTTGTGAATCAGCCAGTGTGATGGCTGCGACACTGGCTAATGGTGGTTTCTGCCCAATTACTGG TGAAAGAGTACTGAGCCCTGAAGCAGTTCGAAATACATTGAGTTTGATGCATTCCTGTGGCATGTATGACTTCTC AGGGCAGTTTGCTTTCCATGTTGGTCTTCCTGCAAAATCTGGAGTTGCTGGGGGCATTCTTTTAGTTGTCCCCAA TGTTATGGGTATGATGTGCTGGTCTCCTCCTCTGGATAAGATGGGCAACAGTGTTAAGGGAATTCACTTTTGTCA CGATCTTGTTTCTCTGTGTAATTTCCATAACTATGATAATTTGAGACACTTTGCAAAAAAACTTGATCCTCGAAG AGAAGGTGGTGATCAAAGGCATTCCTTTGGACCATTGGACTATGAAAGTCTCCAACAAGAACTTGCTTTAAAAGA GACAGTATGGAAAAAAGTGTCACCTGAGTCAAATGAGGACATCTCTACAACTGTAGTATATAGAATGGAAAGTCT GGGAGAGAAAAGCTAAAGAAATGGGTTCTAGTTTCAGAATGTTTCTTCATTTAATCTTTCAAACATCTTTAGCTT TTTTCCTTTTAATCTTTGTATAAAGGCAGTAGATTAAGAAGTGCATTTGTTGGTCTTTAAAAAGTATTTACAAGT TATGTGGTCAGATAATCCCATTTTACAATAGTAACAGAAAATTGTAATTCTTAGTTCTAAAATTCACAAATTAAA CTCATAAGCTTTGTTGCATTTTGTTTTTTCTTTTCCATTTTTAAAACTAATGTGATGTCTTTAGTGGCAATAGAA GATTATAAAATTAGCTTGTGTTTACATTTATGCCATTTTTGGTGATAGATTGGCTTTACATTTTAAAAAATTTAT GTTATATACAGGAGTGTCTTATGTTACTAAAACATTCCAGCCAAAGAATTTCAGATGTGAGATAATGATGTTTCA CAATTTTATTTCATATTATCCACATAACTTTTTCTATGTTATATTTAAATATGAATGGCAAATTTTGGTTTTTA GCTTTTACATTTTATCTTAATTTTATAAATGCTAATATTTCTTTTGTGATAAGTTATAGCATCTCATAAAGT CGTTAGATCTAAATCCTTTTATTTGGTATAAAAATGCAATATTGAGAATCAAAACTTGTTTTTAAGAGAACTATA GATTCTACACAACCTGATTTCAAGTAATTATTCATAGTATTTATAGTTGTCTTGGCAAAGTGATTGTAAAATTCT GTAGGACCTATTCACACTTCTTCCTTCTTCCATATACTTCTCTGGTTTTCCCCATAGTTCCCCTATAATTTCAAG TGTGGTAATGGAAAGTCTGTAAAAGTAAATATAGTGTAGXAAAAAAGATTTCACTGAGTATTTTAGATACTAGTG XAAATAAAGATAGAAAATCTTGATCATAATGTCTTAAGTTTGGGAACTGTGATATTAAGAAAAGAAATTCCCTTC 

#### 1495/2682 FIGURE 1355B

#### 1496/2682 FIGURE 1356

MMRLRGSGMLRDLLLRSPAGVSXTLRRAQPLVTLCRRPRGGGRPAAGPAAAARLHPWWGGGGWPAEPLARGLSSS PSEILQELGKGSTHPQPGVSPPAAPAAPGPKDGPGETDAFGNSEGKELVASGENKIKQGLLPSLEDLLFYTIAEG QEKIPVHKFITALKSTGLRTSDPRLKECMDMLRLTLQTTSDGVMLDKDLFKKCVQSNIVLLTQAFRRKFVIPDFM SFTSHIDELYESAKKQSGGKVADYIPQLAKFSPDLWGVSVCTADGQRHSTGDTKVPFCLQSCVKPLKYAIAVNDL GTEYVHRYVGKEPSGLRFNKLFLNEDDKPHNPMVNAGAIVVTSLIKQGVNNAEKFDYVMQFLNKMAGNEYVGFSN ATFQSERESGDRNFAIGYYLKEKKCFPEGTDMVGILDFYFQLCSIEVTCESASVMAATLANGGFCPITGERVLSP EAVRNTLSLMHSCGMYDFSGQFAFHVGLPAKSGVAGGILLVVPNVMGMMCWSPPLDKMGNSVKGIHFCHDLVSLC NFHNYDNLRHFAKKLDPRREGGDQRHSFGPLDYESLQQELALKETVWKKVSPESNEDISTTVVYRMESLGEKS

#### 1497/2682 FIGURE 1357

GACGTTTCGTTATCTTCTGATCCTTGCACCTTCTTTTGGGGAAACGGGGCCCTTCTGCCCAGATCCCCTCTTTT TCTCGGAAAACAAACTACTAAGTCGGCATCCGGGGTAACTACAGTGGAGAGGGTTTCCGCGGAGACGCGCCGCCG GACCCTCCTCTGCACTTTGGGGAGGCGTGCTCCCTCCAGAACCGGCGTTCTCCGCGCGCAAATCCCGGCGACGCG CCGCCCGCTGTCCTGCACGAACCCTTCCAACTCTCCTTTCCTCCCCCACCCTTGAGTTACCCCTCTGTCTTT CCTGCTGTTGCGCGGGTGCTCCCACAGCGGAGCGGAGATTACAGAGCCGCCGGG<u>ATG</u>CCCCAACTCTCCGGAGGA GGTGGCGGCGGGGGGGGACCCGGAACTCTGCGCCACGGACGAGATGATCCCCTTCAAGGACGAGGGCGATCCT CAGAAGGAAAAGATCTTCGCCGAGATCAGTCATCCCGAAGAGGGAAGGCGATTTAGCTGACATCAAGTCTTCCTTG GTGAACGAGTCTGAAATCATCCCGGCCAGCAACGGACACGAGGTGGCCAGACAAGCACAAACCTCTCAGGAGCCC TACCACGACAAGGCCAGAGAACACCCCGATGACGGAAAGCATCCAGATGGAGGCCTCTACAACAAGGGACCCTCC TACTCGAGTTATTCCGGGTACATAATGATGCCAAATATGAATAACGACCCATACATGTCAAATGGATCTCTTTCT CCACCCATCCCGAGAACATCAAATAAAGTGCCCGTGGTGCAGCCATCCCATGCGGTCCATCCTCTCACCCCCCTC ATCACTTACAGTGACGAGCACTTTTCTCCAGGATCACACCCGTCACACATCCCATCAGATGTCAACTCCAAACAA GGCATGTCCAGACATCCTCCAGCTCCTGATATCCCTACTTTTTATCCCTTGTCTCCGGGTGGTGTTGGACAGATC ACCCCACCTCTTGGCTGGCAAGGTCAGCCTGTATATCCCATCACGGGTGGATTCAGGCAACCCTACCCATCCTCA CTGTCAGTCGACACTTCCATGTCCAGGTTTTCCCATCATATGATTCCCGGTCCTCCTGGTCCCCACACAACTGGC ATCCCTCATCCAGCTATTGTAACACCTCAGGTCAAACAGGAACATCCCCACACTGACAGTGACCTAATGCACGTG AAGCCTCAGCATGAACAGAGAAAGGAGCCAGGAGCCAAAAAGACCTCACATTAAGAAGCCTCTGAATGCTTTTATG CTACAGGAATCTGCATCAGGTACAGGTCCAAGAATGACAGCTGCCTACATCTGAAACATGGTGGAAAACGAAGCT CATTCCCAACGTGCAAAGCCAAGGCAGCCCCAGGACCTCTTCTGGAGATGGAAGCTTGTTGAAAACCCAGAC TGTCTCCACGGCCTGCCCAGTCGACGCCAAAGGAACACTGACATCAATTTTACCCTGAGGTCACTGCTAGAGACG CTGATCCATAAAGACAATCACTGCCAACCCCTCTTTCGTCTACTGCAAGAGCCAAGTTCCAAAATAAAGCATAAA AAGGTTTTTTAAAAGGAAATGTAAAAGCACATGAGAATGCTAGCAGGCTGTGGGGCAGCTGAGCAGCTTTTCTCC  ${\tt CCCCATATCTGCGTGCACTTCCCAGAGCATCTTGCATCCAAACCTGTAACCTTTCGGCAAGGACGGTAACTTGGC}$ TGCATTTGCCTGTCATGCGCAACTGGAGCCAGCAACCAGCTATCCATCAGCACCCCAGTGGAGGAGTTCATGGAA GATCGTTTTTTTTGCTTTTTTAAACTTGAATTTTTTTAATTTTACACTTTTTAGTTTTTAATTTTCTTGTATATTT TGCTAGCTATGAGCTTTTAAATAAAATTGAAAGTTCTGGAAAAGTTTGAAATAATGACATAAAAAGAAGCCTTCT TTTTCTGAGACAGCTTGTCTGGTAAGTGGCTTCTCTGTGAATTGCCTGTAACACATAGTGGCTTCTCCGCCCTTG TAAGGTGTTCAGTAGAGCTAAATAAATGTAATAGCCAAACCCCACTCTGTTGGTAGCAATTGGCAGCCCTATTTC AGTTTATTTTTTTCTTCTTTTTTTTTTTTTTTTAAACAGTAAACCTTAACAGATGCGTTCAGCAGACTGG TTTGCAGTGAATTTTCATTTCTTTATCACCCCCTTGTTGTAAAAAGCCCAGCACTTGAATTGTTATTACTT TAAATGTTCTGTATTTGTATCTGTTTTTATTAGCCAATTAGTGGGATTTTATGCCAGTTGTTAAAATGAGCATTG ATGTACCCATTTTTAAAAAAGCAAGCACAGCCTTTGCCCAAAACTGTCATCCTAACGTTTGTCATTCCAGTTTG AAAAAAA

# FIGURE 1358

MPQLSGGGGGGGDPELCATDEMIPFKDEGDPQKEKIFAEISHPEEEGDLADIKSSLVNESEIIPASNGHEVARQ AQTSQEPYHDKAREHPDDGKHPDGGLYNKGPSYSSYSGYIMMPNMNDPYMSNGSLSPPIPRTSNKVPVVQPSHA VHPLTPLITYSDEHFSPGSHPSHIPSDVNSKQGMSRHPPAPDIPTFYPLSPGGVGQITPPLGWQGQPVYPITGGF RQPYPSSLSVDTSMSRFSHHMIPGPPGPHTTGIPHPAIVTPQVKQEHPHTDSDLMHVKPQHEQRKEQEPKRPHIK KPLNAFMLYMKEMRANVVAECTLKESAAINQILGRRWHALSREEQAKYYELARKERQLHMQLYPGWSARDNYGKK KKRKREKLQESASGTGPRMTAAYI

#### 1499/2682 FIGURE 1359

GTGGGACTGGGATCATCAGTCTCTTCTGTGCACACTATGCGCGGCCTAGAGCGGTGTACGCGGTGGAGGCCAGTG AGATGGCACAGCACACGGGGCAGCTGGTCCTGCAGAACGGCTTTGCTGACATCATCACCGTGTACCAGCAGAAGG TCATGATCGAGTCCATCCTGTATGCCCGGGATGCCTGGCTGAAGGAGGACGGGGTCATTTGGCCCACCATGGCTG CGTTGCACCTTGTGCCCTGCAGTGCTGATAAGGATTATCGTAGCAAGGTGCTCTTCTGGGACAACGCGTACGAGT TCAACCTCAGCGCTCTGAAGTAAGTGTCCACAGCTGGGACTGGCACCGTCTTGTGGGGCCCTCCTGGTCCACAGTC TGCAGGTGGGCCAAGGCCCTGGGAGATCCCATACGACGGTTGGATAAATGAGGGTACCTGTGCACCCAGATAGGA CAATCTGTTGTAGCATTGGAGTAATTAAAGCAGTATGGTGCTATAACAAGACAGATGGGCAGAGCAGGGTAGAAT GCAAGGAACAAAATTTTCGTATGTGAAAAAGGTGGCATTACGATTAGGAGGGGGTGAGGGCCAAGTCAGCAAAT TATTCTGGAGCAGTTGATTAGCCCTTGTTCTCTCACGCCATACGTGAAAACTTAATTCTGCATGGAATCAGCGTC CCCTGGGCTAGATAGAATCTGGCAGTCTATGTGGCAGAAAATCAGCAAAAACACGATTGTAAAAAGCAAACAAGTAA TTAGAGAAATCACGTGCTGTCAGGTCTTGGAATCAATTAGAAAGAGATGACTAGCCAGATGGAATTGCAGCCCAA GTTAAAATGCGAATTAAAATACATGCTGTTTTCCCTACCAGACAAGCAAAGAGTAAATTAAAATAGTAGCCCAGG CTTGCCTGGCAGTGGCAGGGGGTGTGGCTGCCAGGGCCTTAGAGGTTGGCATCAGGCTGCCCACCCCAGTCACT GCCAGAGCCTCCCACCTGAGTGTTCCTCCCGGCACTGGAAGCCAGTGGCCGTCCAGAGGAACGTGATTGAATTGC TGTATATCCATCTGGTGGAGCACTGCTGTGTGTCTGTTAAAAAAAGAAACCATAGGTTTTTAGGGATATGTAATGA AAATAAATTTATATAAATATGTCTGGGGGATAAAAATAAGTATATCACAATGCTAAGACAGGCATATGGGGAATT 

#### 1500/2682 FIGURE 1360

GGCACGAGGATTTCCTCATCGTCAAGCTTTGTTCCTCGTGGGGGCTAGAAATCTCTTTCCAGTTCCAGATTGTGA ACAATGGACTTCTGGCTTTGGCCACTTTACTTCCTGCCAGTATCGGGGGCCCTGAGGATCCTCCCAGAAGTAAAG GTAGAGGGGGAGCTGGGCGGATCAGTTACCATCAAGTGCCCACTTCCTGAAATGCATGTGAGGATATATCTGTGC CGGGAGATGGCTGGATCTGGAACATGTGGTACCGTGGTATCCACCACCACCTCATCAAGGCAGAATACAAGGGC CGAGTTACTCTGAAGCAATACCCACGCAAGAATCTGTTCCTAGTGGAGGTAACACAGCTGACAGAAAGTGACAGC GGAGTCTATGCCTGCGGAGCGGGCATGAACACAGACCGGGGAAAGACCCAGAAAGTCACCCTGAATGTCCACAGT GAATACGAGCCATCATGGGAAGAGCAGCCAATGCCTGAGACTCCAAAATGGTTTCATCTGCCCTATTTGTTCCAG ATGCCTGCATATGCCAGTTCTTCCAAATTCGTAACCAGAGTTACCACACCAGCTCAAAGGGGCAAGGTCCCTCCA GTTCACCACTCCTCCCCCACCACCCAAATCACCCACCGCCCTCGAGTGTCCAGAGCATCTTCAGTAGCAGGTGAC AAGCCCCGAACCTTCCTGCCATCCACTACAGCCTCAAAAATCTCAGCTCTGGAGGGGCTGCTCAAGCCCCAGACG CAAGGATTTCACATCCTGATCCCGACCATCCTGGGCCTTTTCCTGCTGGCACTTCTGGGGCTGGTGGTGAAAAGG GCCGTTGAAAGGAGGAAAGCCCTCTCCAGGCGGGCCCGACTGGCCGTGAGGATGCGCGCCCTGGAGAGCTCC CAGAGGCCCGGGGTCGCCGCGCCCCCCCAAAACACATCTACAGCGCCTGCCCGCGGCGCGCTCGTGGA TCTGAATCTCCCTGGCTCCATGCCCCATCTCTGAAGACCAGCTGTGAATACGTGAGCCTCTACCACCAGCCTGCC CCAGGCTCGGACTGTGGTGCCAAGGAGTCTCATCTATCTGCTGATGTCCAATACCTGCTTCATGTGTTCTCAGAG CCCTCATCACTTCCCATGCCCCATCTCGACTCCCATCTCTATCTGTGCCCTGAGCATGGCTCTGCCCCCAG GTCGTCTTGCACACCTTGGCAGCCCCCTGTAGTTGACAGGTAAGCTGTAGGCATGTAGAGCAATTGTCCCAATGC CACTTGCTTCCTTTCCAAGCCGTCGAACAGACTGTGGGGATTTGCAGAGTGTTTCTTCCATGTCTTTGACCACAGG GTTGTTGCTGCCCAGGCTCTAGATCACATGGCATCAGGCTGGGGCAGAGGCATAGCTATTGTCTCGGGCATCCTT CCCAGGGTTGGGTCTTACACAAATAGAAGGCTCTTGCTCTGAGTTATGTGACATGCCTCAGCCCCATGGACTAAG CAGGGGTCTGGTATAAAAACACTCCTGGAAACGCCTTTGCCCTGATCCAAATGTTAGCACTTGCTAGTGAACGTC TACTTATCTCAAGTTCTATGCTAAAGGCAATTTATCTTGATGTGATGATAAACCAAACTTATTAGCAAGATATGC **АТАТАТСААААААААААААА** 

## 1501/2682 FIGURE 1361

MDFWLWPLYFLPVSGALRILPEVKVEGELGGSVTIKCPLPEMHVRIYLCREMAGSGTCGTVVSTTNFIKAEYKGR VTLKQYPRKNLFLVEVTQLTESDSGVYACGAGMNTDRGKTQKVTLNVHSEYEPSWEEQPMPETPKWFHLPYLFQM PAYASSSKFVTRVTTPAQRGKVPPVHHSSPTTQITHRPRVSRASSVAGDKPRTFLPSTTASKISALEGLLKPQTP SYNHHTRLHRQRALDYGSQSGREGQGFHILIPTILGLFLLALLGLVVKRAVERRKALSRRARRLAVRMRALESSQ RPRGSPRPRSQNNIYSACPRRARGADAAGTGEAPVPGPGAPLPPAPLQVSESPWLHAPSLKTSCEYVSLYHQPAA MMEDSDSDDYINVPA

#### 1502/2682 FIGURE 1362

 $\tt CTGTTGGCCTGGGTACAAGCATTCCTCGTCAGCAACATGCTCCTAGCAGAAGCCTATGGATCTGGAGGCTGTTTC$ GCGCAGAGCGGGCTGGCCTCGGCCCCGTGTCGGGGGCCCGCAATCACAGTTACTGCCGAAACCCGGACGAGGAC CCGCGCGGGCCCTGGTGCTACGTCAGTGGCGAGGCCGGCGTCCCTGAGAAACGGCCTTGCGAGGACCTGCGCTGT CCAGAGACCACCTCCCAGGCCTGCCAGCCTTCACGACAGAAATCCAGGAAGCGTCTGAAGGGCCAGGTGCAGAT GAGGTGCAGGTGTTCGCTCCTGCCAACGCCCTGCCCGCTCGGAGTGAGGCGGCAGCTGTGCAGCCAGTGATTGGG ATCAGCCAGCGGGTGCGGATGAACTCCAAGGAGAAAAAGGACCTGGGAACTCTGGGCTACGTGCTGGGCATTACC  ${\tt ATGATGGTGATCATCATCGGAGCTGGCATCATCTTGGGCTACTCCTACAAGAGGGGGAAGGATTTGAAA}$ GAACAGCATGATCAGAAAGTATGTGAGAGGGAGATGCAGCGAATCACTCTGCCCTTGTCTGCCTTCACCAACCCC TGCAGGACAGCCCACCCTCCTACAGCTAGGAGGAACTACCACTTTGTGTTCTGGTTAAAACCCTACCACTCCCCC GCTTTTTTGGCGAATCCTAGTAAGAGTGACAGAAGCAGGTGGCCCTGTGGGCTGAGGGTAAGGCTGGGTAGGGTC GCTGCTGCTAAGGGCTTCCAAACATTGCCTGCACCCCTGGAACTGAACCAGGGATAGACGGGGAGCTCCCCCAGG CTCCTCTGTGCTTTACTAAGATGGCCTCAGTCTCCACTGTGGGCTTGAGTGGCATACACTGTTATTCATGGTTAA GGTAAAGCAGGTCAAGGGATGGCATTGAAAAAATATATTTAGTTTTTAAAATATTTTGGGATGGAACTCCCTACTG ACCTCTGAGAACTGGAAACGAGTTTGTACAGAAGTCAGAACTTTGGGTTGGGAATGAGATCTAGGTTGTGGCTGC TGGTATGCTTCAGCTTGCTGGCAATGATGTGCCTTGACAACCGTGGGCCAGGCCTGGGCCCAGGGACTCTTCCTG TTTCATAAGGAAAGGAAGAATTGCACTGAGCATTCCACTTAGGAAGAGGATAGAAGAAGGATCTGCTCCGCCTTTG  $\tt CTGGAAACTAAGCTCAGAGGCAAGGTAATAAAGCACTTCAGGGCTTGCTCCCCAAGTGGGCCTGATTTAGCAGGT$ GGTCCTGCGGGCGTCCAGGTCAGCACCTTCCTGTAGGGCACTGGGGGCTAGGGTCACAGCCCCTAACTCATAAAGC AATCAAAGAACCATTAGAAAGGGCTCATTAAGCCTTTTGGACACAGGACCCCAGAGAGGAAAAAGTGACTTGCCC AAGGTCGTAAGCAAGCTACTGGCATGGCAAGAGCCCAGCTTCCTGACGGAGCGCAACATTTCTCCACTGCACTGT GCTAGCAGCTCAGCAGGGCCTCTAACCTGTGATGTCACACTCAAGAGGCCTTGGCAGCTCCTAGCCATAGAGCTT GGACCTAGACCTCAGGTGGTCTCTTGGTGTTAGTGATGCTGGAGAAGAATATTACTGGTTTCTACTTTTCTAT AAAGGCATTTCTCTATATACATGTTTTATATACCTCATTCTGACACCTGCATATAGTGTGGGGAAATTGCTCTGCA TTTGACTTAATTAAAAAAAAAAAAAAAAA

## 1503/2682 FIGURE 1363

MLLAWVQAFLVSNMLLAEAYGSGGCFWDNGHLYREDQTSPAPGLRCLNWLDAQSGLASAPVSGAGNHSYCRNPDE DPRGPWCYVSGEAGVPEKRPCEDLRCPETTSQALPAFTTEIQEASEGPGADEVQVFAPANALPARSEAAAVQPVI GISQRVRMNSKEKKDLGTLGYVLGITMMVIIIAIGAGIILGYSYKRGKDLKEQHDQKVCEREMQRITLPLSAFTN PTCEIVDEKTVVVHTSQTPVDPQEGSTPLMGQAGTPGA

#### 1504/2682 FIGURE 1364

 ${\tt AAAATAAAGATGACTATATCAGAGACTTGAAAAGGATCATTCTCTGTTTTCTGATAGTGTAT \\ \underline{{\tt ATG}}{\tt GCCATTTTAG} \\$ TGGGCACAGATCAGGATTTTTACAGTTTACTTGGAGTGTCCAAAACTGCAAGCAGTAGAGAAATAAGACAAGCTT TCAAGAAATTGGCATTGAAGTTACATCCTGATAAAAACCCGAATAACCCAAATGCACATGGCGATTTTTTAAAAA TAAATAGAGCATATGAAGTACTCAAAGATGAAGATCTACGGAAAAAGTATGACAAATATGGAGAAAAAGGGACTTG AGGATAATCAAGGTGGCCAGTATGAAAGCTGGAACTATTATCGTTATGATTTTTGGTATTTATGATGATGATCCTG AAATCATAACATTGGAAAGAAGAAGAATTTGATGCTGCTGTTAATTCTGGAGAACTGTGGTTTGTAAATTTTTACT  ${\tt CCCCAGGCTGTTCACACTGCCATGATTTAGCTCCCACATGGAGAGACTTTGCTAAAGAAGTGGATGGGTTACTTC}$ GAATTGGAGCTGTTAACTGTGGTGATGATAGAATGCTTTGCCGAATGAAAGGAGTCAACAGCTATCCCAGCCTCT TCATTTTCGGTCTGGAATGGCCCCAGTGAAATATCATGGAGACAGATCAAAGGAGAGTTTAGTGAGTTTTGCAA TGCAGCATGTTAGAAGTACAGTGACAGAACTTTGGACAGGAAATTTTGTCAACTCCATACAAACTGCTTTTGCTG  $\tt CTGGTATTGGCTGGCTGATCACTTTTTGTTCAAAAGGAGGAGATTGTTTGACTTCACAGACACGACTCAGGCTTA$ ATATTACAACAAGTACTACTGCTTATTTTCCTCCTGGAGCCACTTTAAATAACAAAGAGAAAAACAGTATTTTGT TTCTCAACTCATTGGATGCTAAAGAAATATTTTGGAAGTAATACATAATCTTCCAGATTTTGAACTACTTTCGG CAAACACACTAGAGGATCGTTTGGCTCATCATCGGTGGCTGTTATTTTTTCATTTTGGAAAAAATGAAAATTCAA ATGATCCTGAGCTGAAAAAACTAAAAACTCTACTTAAAAATGATCATATTCAAGTTGGCAGGTTCGACTGTTCCT CTGCACCAGACATCTGTAGTAATCTGTATGTTTTTCAGCCGTCTCTAGCAGTATTTAAAGGACAAGGAACCAAAG AATATGAAATTCATCATGGAAAGAAGTTCTATATGATATACTTGCCTCTGCCAAAGAAGTGTGAATTCTCATG TTACCACGCTTGGACCTCAAAATTTTCCTGCCAATGACAAAGAACCATGGCTTGTTGATTTCTTTGCCCCCTGGT GTCCACCATGTCGAGCTTACTACCAGAGTTACGAAGAGCATCAAATCTTCTTTATGGTCAGCTTAAGTTTGGTA CACTAGATTGTACAGTTCATGAGGGACTCTGTAACATGTATAACATTCAGGCTTATCCAACAACAGTGGTATTCA ACCAGTCCAACATTCATGAGTATGAAGGACATCACTCTGCTGAACAAATCTTGGAGTTCATAGAGGATCTTATGA ATCCTTCAGTGGTCTCCCTTACACCCACCTTCAACGAACTAGTTACACAAAGAAAACACAACGAAGTCTGGA TGGTTGATTTCTATTCTCCGTGGTGTCATCCTTGCCAAGTCTTAATGCCAGAATGGAAAAGAATGGCCCGGACAT TAACTGGACTGATCAACGTGGGCAGTATAGATTGCCAACAGTATCATTCTTTTTGTGCCCAGGAAAACGTTCAAA GATACCCTGAGATAAGATTTTTTCCCCCGAAATCAAATAAAGCTTATCATTATCACAGTTACAATGGTTGGAATA GGGATGCTTATTCCCTGAGAATCTGGGGTCTAGGATTTTTACCTCAAGTATCCACAGATCTAACACCTCAGACTT ATTTTGCTCCAGAATTTGAGCTCTTGGCTAGGATGATTAAAGGAAAAGTGAAAGCTGGAAAAGTAGACTGTCAGG AGAGAAATTTTCAAGAAGAGCAGATAAATACCAGAGATGCAAAAGCAATCGCTGCCTTAATAAGTGAAAAATTGG  ${\tt AAACTCTCCGAAATCAAGGCAAGAGGAATAAGGATGAACTT} \underline{{\tt TGA}} {\tt TAATGTTGAAGATGAAGAAAAAGTTTAAAAG$ TAGACTTGCAGTTGTACTGCCAGAATTATCTACAGCACTGGTGTAAAAGAAGGGTCTGCAAACTTTTTCTGTAAA GGGCCGGTTTATAAATATTTTAGACTTTGCAGGCTATAATATATGGTTCACACATGAGAAC

## 1505/2682 FIGURE 1365

MAILVGTDQDFYSLLGVSKTASSREIRQAFKKLALKLHPDKNPNNPNAHGDFLKINRAYEVLKDEDLRKKYDKYG EKGLEDNQGGQYESWNYYRYDFGIYDDDPEIITLERREFDAAVNSGELWFVNFYSPGCSHCHDLAPTWRDFAKEV DGLLRIGAVNCGDDRMLCRMKGVNSYPSLFIFRSGMAPVKYHGDRSKESLVSFAMQHVRSTVTELWTGNFVNSIQ TAFAAGIGWLITFCSKGGDCLTSQTRLRLSGMLDGLVNVGWMDCATQDNLCKSLDITTSTTAYFPPGATLNNKEK NSILFLNSLDAKEIYLEVIHNLPDFELLSANTLEDRLAHHRWLLFFHFGKNENSNDPELKKLKTLLKNDHIQVGR FDCSSAPDICSNLYVFQPSLAVFKGQGTKEYEIHHGKKILYDILASAKESVNSHVTTLGPQNFPANDKEPWLVDF FAPWCPPCRALLPELRRASNLLYGQLKFGTLDCTVHEGLCNMYNIQAYPTTVVFNQSNIHEYEGHHSAEQILEFI EDLMNPSVVSLTPTTFNELVTQRKHNEVWMVDFYSPWCHPCQVLMPEWKRMARTLTGLINVGSIDCQQYHSFCAQ ENVQRYPEIRFFPPKSNKAYHYHSYNGWNRDAYSLRIWGLGFLPQVSTDLTPQTFSEKVLQGKNHWVIDFYAPWC GPCQNFAPEFELLARMIKGKVKAGKVDCQAYAQTCQKAGIRAYPTVKFYFYERAKRNFQEEQINTRDAKAIAALI SEKLETLRNQGKRNKDEL

#### 1506/2682 FIGURE 1366

## 1507/2682 FIGURE 1367

#### 1508/2682 FIGURE 1368

TAAAAGTGAAAGTGGTGATTGGCATTGTACAGCTAGCTGGAAGACACATAGTGGATCTGTATGGCGTGTGACATG GGCCCATCCTGAATTTGGGCAAGTTTTGGCTTCCTGTTCTTTTGACCGAACAGCTGCTGTATGGGAAGAAATAGT TGTTACTGATGTGAAGTTTGCTCCCAAGCACATGGGTCTTATGTTAGCAACCTGTTCCGCAGATGGTATAGTAAG AATCTATGAGGCACCAGATGTTATGAATCTCAGCCAGTGGTCTTTGCAGCATGAGATCTCATGTAAGCTAAGCTG TAGTTGCATTTCTTGGAACCCTTCAAGCTCTCGTGCTCATTCCCCCATGATCGCCGTAGGAAGTGATGACAGTAG CCCCAACGCAATGGCCAAGGTTCAGATTTTTGAATATAATGAAAACACCAGGAAATATGCAAAAGCTGAAACTCT TATGACAGTCACTGATCCTGTTCATGATATTGCATTCGCTCCAAATTTGGGAAGATCTTTCCATATTCTAGCAAT AGCGACCAAAGATGTGAGAATTTTTACATTAAAGCCTGTGAGGAAAGAACTGACTTCCTCTGGTGGGCCAACAAA AACGGTGCTAGCATCTTCAGGAGATGATGGGTGTGTAAGATTGTGGAAAGCTAATTATATGGACAATTGGAAGTG TACTGGTATTTTGAAAGGTAATGGGAGCCCAGTCAATGGGAGTTCTCAGCAGGGAACCTCAAATCCTTCCCTAGG  $ext{T}$ TCAAATATTCCAAGTCTTCAGAATTCATTAAATGGATCTTCTGCTGGCAGAAAGCACAGC $ext{TGA}$ GACAAGCTAAC TGGAGTAACTTTGCTGTTTTGCTGCTTGTTGCATGCACACTGGAATGGAAAGCGAGCTCCCTTTTCCCCTTCCCC AGCGCCGTTTGACCTCTCCCAAGGATACACCAGCAGCCTGCTTACTACTAAAACGCAATCCAAAAGGCCTTTAAAA ATACAGTGTATATTTTTTGTACTAGTCAGTTTATTGACACTATTTGAAACTTTTGAAATATAAACGGAGAGGCTT TCTGTTGAGACATTGTCACCAAAACAATTTTTTGAAATGTTCCTGAAACTAATTTGGGTTTAAAGATTAAAAGGG TTGTTACCATTCTTATCTGAGTAGTTGGGAGGAGGGGAATACCACTTTAGTTCATTTGGAAAATATAGACATATT ATAAAGATTGTTTTGAGTGCTGATTTGTTTACTTTTTGTAGATTTGCTTTATCCATGATATTCAGTACAACTCTG  $\tt CTTGACTGTACAGTTTGTAGCCCAGGTTAAGGCATTTGGGTATTGTTTCATTTAACCAATTTGGGGACTAAGATG$ GGAAACACTTTTTTTATTAAGTTTTTAATTCATAGTCACTAAAGAGATAAATGTTTCTTATATACATTTGTGTAT TTAAAATTTTACTAAAATTGTGCATGTAAATTAATTGTCAGCATTCCATGTCTCAAGATTTTCTTAATTTAGTTC GCTGTTTAAATTAATTCATGTCCTGTAAAGTTCTGACCTTGATAACAAAGCTATAAATATTTAAGTTTGCTAATA TGCGTAAGTATTATCGGTAAGTTACAAGATGGAAGAAGAATAACAGTAGGGCACAGTCATTCTGTGAATCCTTTT ACTTATCAAAATTTGGTAGCTATTCTAAGGCTTTTGCAGAAAAATAAGTGTTCAATGTTTGTAGTTCTAAAAG TGCTGTGAGTGAACCATTGCTTAAGATAAAAAACTTAACTAGATCTGTAAATGTACAGAATAGCATCAGATGTTT ATTTTAAGTTTAACAGATTGTATTCCTTTCAAGTTTCTATACTTGCTTAAGCAATCTTGATTTGAGTAAGGGTCT TTTGGTGTTTTGTTCCTGTCTTCATTGTTTCAGGTATTTCTTTACCCCTCTGGATTCCCCACGGGCTGGATCGAG ATGGTCCAGTTATGCCCAGCTCCTTCCTCCTCCTCCTCCTCCTCGTAGAGCACTCTTGCGATGCTGACACTGC TTAAAACACTGATTTAACATTGAAAGGCCTTATTCAAGTGCTTGTAAATGCTTTCATTTCTGGCTGCTTTTTGTT AACCTAAATCTGTTTGTGCGTCTGCATCAAAGGAACATTTGCTTCACTGGGTGATAACCTTTGATGAAATGAGAT ATGTCCAAGTAACGTTAACTGTGAAGTTACACACAGTAGCTGACTTCAAAGTGCCTGTTCCTGTAAATTTTATTT TAAACTGTTACCATAGTCTTAAGTTGTTTATGCTTTATCAGACTGGCTAATGTGAAAGCATAATATTATGAAGTT TATTCTGCCTTATGAGACCTTAAAAAATGGATTTCATTTTACAGGCTAATGTTGTAACTGACTAGTATGTAAAAT 

## 1509/2682 FIGURE 1369

MFVARSIAADHKDLIHDVSFDFHGRRMATCSSDQSVKVWDKSESGDWHCTASWKTHSGSVWRVTWAHPEFGQVLA SCSFDRTAAVWEEIVGESNDKLRGQSHWVKRTTLVDSRTSVTDVKFAPKHMGLMLATCSADGIVRIYEAPDVMNL SQWSLQHEISCKLSCSCISWNPSSSRAHSPMIAVGSDDSSPNAMAKVQIFEYNENTRKYAKAETLMTVTDPVHDI AFAPNLGRSFHILAIATKDVRIFTLKPVRKELTSSGGPTKFEIHIVAQFDNHNSQVWRVSWNITGTVLASSGDDG CVRLWKANYMDNWKCTGILKGNGSPVNGSSQQGTSNPSLGSNIPSLQNSLNGSSAGRKHS

#### 1510/2682 FIGURE 1370

 ${\tt CCCGTTGGCGGCGTCACTGACGCTTCGCTCCGGTCCTCGGATCCCGAGCGCGGGGAGGCAGACCGACTGTGAGCT}$  ${\tt GCTTGTCCCCATCCTGCGGCCGTCCTGGGGACACAGAGCCCTCCGTGGTGCCCGGGGATTGGATTGGAGCCAGGA}$ GGCCCTGGGTGGCGATGGCGTCCAGGTGGGGTCCCCTCATTGGCCTGGCTCCGTGCTCCTGGCTCCTGGGGG AGAATGAGATCCTGCCCCCAGACCACCTGAACGGGGTGAAGCTGGAGATGGACGGGCACCTCAATCGCGGCTTCC ACCAGGAGGTCTTCCTAGGCAAGGACCTGGGTGGCTTTGATGAGGACGCGGAGCCGCGGGGGAGCCGGAGGAAGC TGATGGTCATCTTTTCCAAGGTGGATGTGAACACTGACCGGAAGATCAGTGCCAAGGAGATGCAGCGCTGGATCA TGGAGAAGACGGCCGAGCACTTCCAGGAGGCCATGGAGGAGAGACACACCTTCCGCGCCCGTGGACCCTGACG GGGACGGTCACGTGTCTTGGGACGAGTATAAGGTGAAGTTTTTGGCGAGTAAAGGCCATAGCGAGAAGGAGGTTG GCTGGTACCAGGCGGACAGCCCCCTGCAGACCTGCTGCTGACGGAGGAGGAGTTCCTGTCGTTCCTCCACCCCG TCTCTGTGCCCGAGTTCATCTCCCTGCCCGTGGGCACCGTGGAGAACCAGCAGGGCCAGGACATTGACGACAACT GGGTGAAAGACAGAAAAAAGGAGTTTGAGGAGCTCATTGACTCCAACCACGACGGCATCGTGACCGCCGAGGAGC TGGAGAACGTGCCCACACTCCCGCTGCAGCCAATAGGCACCTTAAATAGCCACTTCGTGCGGCTGGCCGCGGAGC TCGGAGGGGGAAAGGCGACGCTGACCTGTGCCCCGCTCGCCCGCAGAGCTACATGGACCCCATGAACGAGTACAA CGCGCTGAACGAGGCCAAGCAGATGATCGCCGTCGCCGACGAGAACCAGAACCACCACCTGGAGCCCGAGGAGGT CCCCTCTGCAGCGCGCACCCCGGGGGGCTTTGGCTGTGACGCGGTCGGGGCGCGGGGCTGGTCTGTGGCCCCGC GGCGCGCCTCCTCCTGGTCCCTCGAAATCGTGGCATCTCACTTCTGAGAACGAAATCTCGCTTCAGTCACTCTG  $\tt CCGAAGGCGCTGACGGCATCGCGGCCGGAACCTCTGGGCCCGGCCCCTCCCAGGGCCGCCGCTCCGTGGGAAAAA$ ACAGCTCCTCCATTTCCTTGGAAACTGAACGATTATTAAAAATAGATAAACTTCGCTGGAAATGAGTAGCCAGGA AGTTCAGGGGAGGGTCCGGGGTCCTTCCCGGGGCCTGGCGTGTCGGAACCACCCAGGTCCCGCAGCTGCCTCTGA 

## 1511/2682 FIGURE 1371

MVWPWVAMASRWGPLIGLAPCCLWLLGAVLLMDASARPANHSSTRERVANREENEILPPDHLNGVKLEMDGHLNR GFHQEVFLGKDLGGFDEDAEPRRSRRKLMVIFSKVDVNTDRKISAKEMQRWIMEKTAEHFQEAMEESKTHFRAVD PDGDGHVSWDEYKVKFLASKGHSEKEVADAIRLNEELKVDEETQEVLENLKDRWYQADSPPADLLLTEEEFLSFL HPEHSRGMLRFMVKEIVRDLDQDGDKQLSVPEFISLPVGTVENQQGQDIDDNWVKDRKKEFEELIDSNHDGIVTA EELESYMDPMNEYNALNEAKQMIAVADENQNHHLEPEEVLKYSEFFTGSKLVDYARSVHEEF

#### 1512/2682 FIGURE 1372

GGCACGAGGGTCCCTGGGCCGGACGGCGGTGTCCCGGCGTGGCGGGAAGCCGGCACTGGAGCGGGAGCGCACTGG GCGCGGGACCGGAGGCCCAGGGACCGGACGGCTCCCGAGTCGCCCACCTGACGCTAGAAGAAGTCTTCACTTCC TGGGCTCCTGGGCTGCGGTCAATGGGATCTGGGTGGAGCTACCTGTGGTGGTCAAAGAGCTTCCAGAGGGTTGGA TGGCCCCAGGAAAGGACGAGCAGGTCCCCATCCGGGTGGTGCAGGTGCTGGGCATGGTGGGCACAGCCCTGCTGG TGGCACTGGCATGCTGTGCCTCGAATGTCACTTTCCTGCCCTTCTTGAGCCACCTGCCACCTCGCTTCTTACGGT TCTTCTGGGCACTGACTGCCCTTCTGGTCGCTTCAGCTGCTGCCTTCCAGGGTCTTCTGCTGCTGCTGCCAC AGTCCTCACCACTGCAAGAGCCACCAAGCCAGGCAGCAGGCACCCCTGGTCCAGACCCTAAGGCCTATCAGC TTCTATCAGCCCGCAGTGCCTGCCTGCCTGGGCCTGTTGGCCGCCACCAACGCGCTGACCAATGGCGTGCCTG TGCTGCATGGCGGGGGCCGGCCATTGCTGGCAGCCGGCGTGGCCATCCAGGTGGGCTCTCTGCTCGGCGCTG  $\tt TTGCTATGTTCCCCCCGACCAGCATCTATCACGTGTTCCACAGCAGAAAGGACTGTGCAGACCCCTGTGACTCC\underline{T}$  $\underline{GA}$ GCCTGGGCAGGTGGGGACCCCGCTCCCCAACACCTGTCTTTCCCTCAATGCTGCCACCATGCCTGAGTGCCTG  $\tt CAGCCCAGGAGGCCCGCACACCGGTACACTCGTGGACACCTACACACTCCATAGGAGATCCTGG\^CTTTCCAGGGT$ GGGCAAGGGCAAGGAGCAGGCTTGGAGCCAGGGACCAGTGGGGGCTGTAGGGTAAGCCCCTGAGCCTGGGACCTA 

## 1513/2682 FIGURE 1373

MAAPTPARPVLTHLLVALFGMGSWAAVNGIWVELPVVVKELPEGWSLPSYVSVLVALGNLGLLVVTLWRRLAPGK DEQVPIRVVQVLGMVGTALLASLWHHVAPVAGQLHSVAFLALAFVLALACCASNVTFLPFLSHLPPRFLRSFFLG QGLSALLPCVLALVQGVGRLECPPAPINGTPGPPLDFLERFPASTFFWALTALLVASAAAFQGLLLLLPPPPSVP TGELGSGLQVGAPGAEEEVEESSPLQEPPSQAAGTTPGPDPKAYQLLSARSACLLGLLAATNALTNGVLPAVQSF SCLPYGRLAYHLAVVLGSAANPLACFLAMGVLCRSLAGLGGLSLLGVFCGGYLMALAVLSPCPPLVGTSAGVVLV VLSWVLCLGVFSYVKVAASSLLHGGGRPALLAAGVAIQVGSLLGAVAMFPPTSIYHVFHSRKDCADPCDS

#### 1514/2682 FIGURE 1374

GATGGCGGCGGAGGTGCTGAGCCGCCGCTGCGTGCTCATGCGGCTACTGGACTTCTCCTACGAGCAGTACCAGAA GGCCCTGCGGCAGTCGGCGGGCGCGTGGTCATCATCCTGCCCAGGGCCATGGCCGCGTGCCCCAGGACGTCGT  ${\tt CCGGCAATTCATGGAGATCGAGCCGGAGATGCTGGCCATGGAGACCGCCGTCCCCGTGTACTTTGCCGTGGAGGA}$  $\tt CGAGGCCCTGCTGTCTATCTACAAGCAGACCCAGGCTGCCTCCCAGGGCTCCGAGGCTCTGCTGCTGAAGT$ GCTGATTGCCAGCGTGGAGGGGCGGCTGACGGGGCTGGGCGGAGAGGACCTTCCCACCATCGTCATCGTGGCCCA CTACGACGCCTTTGGAGTGGCCCCTGGCTGTCGCTGGCGCGGACTCCAACGGGAGCGGCGTCTCTGTGCTGCT GGAGCTGGCACGCCTCTTCTCCCGGCTCTACACCTACAAGCGCACGCCACGCCCTACAACCTCCTGTTCTTTGC CCTGCTTCAGGACAATGTGGCCTTCGTGCTGTGCCTGGACACCGTGGGCCGGGGCAGCAGCCTGCACCTGCACGT GTCCAAGCCGCCTCGGGAGGGCACCCTGCAGCACGCCTTCCTGCGGGAGCTGGAGACGGTGGCCGCGCACCAGTT CTTCGCCATCCGCCGACTGCCCGCCTTCACGCTGTCCCACCTGGAGAGCCACCGTGACGGTCAGCGCAGCAT  ${\tt AGTCATCTACAACCTGACAGAGAGGGGACACCCCCAGACATGCCGGTGTTCACAGAGCAGATGCAGATCCAGCAGACATGCAGACATGCCAGACATGCCAGACATGCCAGACATGCCAGACATGCCAGACATGCCAGACATGCCAGACATGCCAGACATGCCAGACATGCCAGACATGCCAGACATGCCAGACATGCCAGACATGCCAGACATGCCAGACATGCCAGACATGCAGACAACATGCAGACAATGCAACAATGCAACAATGCAATGCAATGCAACAATGAACAATGCAATGCAACAATGCAACAATGCAACAATGCAACAATGCAATGCAATGCAATGCAATGCAATGCAATGCAATGCA$ GGAGCAGCTGGACTCGGTGATGGACTGGCTCACCAACCAGCCGCGGGCCGCAGCTGGTGGACAAGGACAGCAC CTTCCTCAGCACGCTGGAGCACCTGAGCCGCTACCTGAAGGACGTGAAGCACCACGTCAAGGCTGACAA TGACCTGCTCCTGGCTGTTGGCATTGCTGCCTACCTCGGCATGGCCTACGTGGCTGTCCAGCACTTCAGCCTCCT  $\tt CTACAAGACCGTCCAGAGGCTGCTGGAAGGCCAAGACACAGT{\underline{GAC}} CACAGCCCCCACAGCCGGAGCCCCCG$  ${\tt CCGCTCCACAGTCCCTGGGGCCGAGCACGAGTGAGTGGACACTGCCCCGCCGGGGGGCCCTGCAGGGACAGGG}$ AAA

#### ·1515/2682 FIGURE 1375

MLKASCLPLGFIVFLPAVLLLVAPPLPAADAAHEFTVYRMQQYDLQGQPYGTRNAVLNTEARTMAAEVLSRRCVL MRLLDFSYEQYQKALRQSAGAVVIILPRAMAAVPQDVVRQFMEIEPEMLAMETAVPVYFAVEDEALLSIYKQTQA ASASQGSASAAEVLLRTATANGFQMVTSGVQSKAVSDWLIASVEGRLTGLGGEDLPTIVIVAHYDAFGVAPWLSL GADSNGSGVSVLLELARLFSRLYTYKRTHAAYNLLFFASGGGKFNYQGTKRWLEDNLDHTDSSLLQDNVAFVLCL DTVGRGSSLHLHVSKPPREGTLQHAFLRELETVAAHQFPEVRFSMVHKRINLAEDVLAWEHERFAIRRLPAFTLS HLESHRDGQRSSIMDVRSRVDSKTLTRNTRIIAEALTRVIYNLTEKGTPPDMPVFTEQMQIQQEQLDSVMDWLTN QPRAAQLVDKDSTFLSTLEHHLSRYLKDVKQHHVKADKRDPEFVFYDQLKQVMNAYRVKPAVFDLLLAVGIAAYL GMAYVAVQHFSLLYKTVQRLLVKAKTQ

## FIGURE 1376

GCCAGCGCACGCGCCCCCTGGAAGGAGAAGTCTCAGCTAGAACGAGCGGCCCTAGGTTTTCGGAAGGGAGGAT TGCCCCTGCTGCTGCTGCTGCTGCTGCTGAAGCTACACCTCTGGCCGCAGTTGCGCTGGCTTCCGGCGG CCTTTCTCATTCACGGCTCGCGGCGCTTTAGCTACTCAGAGGCGGAGCGCGAGAGTAACAGGGCTGCACGCGCCT TCCTACGTGCGCTAGGCTGGGACTGGGGACCCGACGGCGACAGCGGCGAGGGGAGCGCTGGAGAAGGCGAGC GGGCAGCGCCGGAGCCGGAGTGCAGCGGCCGGAAGCGGCGGGAGTTTGCCGGAGGGGACGGTGCCGCCAGAG GTGGAGGAGCCGCCCCCTCTGTCACCTGGAGCAACTGTGGCGCTGCTCCCCCGCTGGCCCAGAGTTTCTGT GGCTCTGGTTCGGGCTGGCCAAGGCCGGCCTGCGCACTGCCTTTGTGCCCACCGCCCTGCGCCGGGGCCCCCTGC TGCACTGCCTCCGCAGCTGCGCGCGCGCGCGCGCTGGTGCTGCCCAGAGTTTCTGGAGTCCCTGGAGCCGGACC TGCTGGCTGAAGTGTCCGCTGAAGTGGATGGGCCAGTGCCAGGATACCTCTCTCCCCCCAGAGCATAACAGACA CGTGCCTGTACATCTTCACCTCTGGCACCACGGGCCTCCCCAAGGCTGCTCGGATCAGTCATCTGAAGATCCTGC AATGCCAGGGCTTCTATCAGCTGTGTGTGTCCACCAGGAAGATGTGATCTACCTCGCCCTCCCACTCTACCACA TGTCCGGTTCCCTGCTGGGCATCGTGGGCTGCATGGGCCATGGGGCCACAGTGGTGCTGAAATCCAAGTTCTCGG TTGTCAACCAGCCCCGAGCAAGGCAGAACGTGGCCATAAGGTCCGGCTGGCAGTGGGCAGCGGGCTGCGCCCAG  ${\tt ATACCTGGGAGCGTTTTGTGCGGCGCTTCGGGCCCCTGCAGGTGCTGGAGACATATGGACTGACAGAGGGCAACG}$ TCTCCTTGATTCGCTATGATGTCACCACAGGAGACCCAAATTCGGGACCCCCAGGGGCACTGTATGGCCACATCTC CAGGTGAGCCAGGGCTGCTGGTGGCCCCGGTAAGCCAGCAGTCCCCATTCCTGGGCTATGCTGGCGGGCCAGAGC TGGCCCAGGGGAAGTTGCTAAAGGATGTCTTCCGGCCTGGGGATGTTTTCTTCAACACTGGGGACCTGCTGGTCT GCGATGACCAAGGTTTTCTCCGCTTCCATGATCGTACTGGAGACACCTTCAGGTGGAAGGGGGGAGAATGTGGCCA GGCATGAAGGCAGGCTGGAATGGCAGCCCTAGTTCTGCGTCCCCCCCACGCTTTGGACCTTATGCAGCTCTACA TTCTGGACCAGGCTGTAGGTGCCTACCTGCCCCTCACAACTGCCCGGTACAGCGCCCTCCTGGCAGGAAACCTTC  $\texttt{GAATC} \underline{\textbf{TGA}} \texttt{GAACTTCCACACCTGAGGCACCTGAGAGAGGAACTCTGTGGGGTGGGGGGCCGTTGCAGGTGTACTGG}$ GCTGTCAGGGATCTTTTCTATACCAGAACTGCGGTCACTATTTTGTAATAAATGTGGCTGGAGCTGATCCAGCTG TCTCTGACCTACAAAAAAAAAAAAAAAAAAAA

#### 1517/2682 FIGURE 1377

MGVCQRTRAPWKEKSQLERAALGFRKGGSGMFASGWNQTVPIEEAGSMAALLLLPLLLLLLLLLLKLHLWPQLRW LPADLAFAVRALCCKRALRARALAAAAADPEGPEGGCSLAWRLAELAQQRAAHTFLIHGSRRFSYSEAERESNRA ARAFLRALGWDWGPDGGDSGEGSAGEGERAAPGAGDAAAGSGAEFAGGDGAARGGGAAAPLSPGATVALLLPAGP EFLWLWFGLAKAGLRTAFVPTALRRGPLLHCLRSCGARALVLAPEFLESLEPDLPALRAMGLHLWAAGPGTHPAG ISDLLAEVSAEVDGPVPGYLSSPQSITDTCLYIFTSGTTGLPKAARISHLKILQCQGFYQLCGVHQEDVIYLALP LYHMSGSLLGIVGCMGIGATVVLKSKFSAGQFWEDCQQHRVTVFQYIGELCRYLVNQPPSKAERGHKVRLAVGSG LRPDTWERFVRRFGPLQVLETYGLTEGNVATINYTGQRGAVGRASWLYKHIFPFSLIRYDVTTGEPIRDPQGHCM ATSPGEPGLLVAPVSQQSPFLGYAGGPELAQGKLLKDVFRPGDVFFNTGDLLVCDDQGFLRFHDRTGDTFRWKGE NVATTEVAEVFEALDFLQEVNVYGVTVPGHEGRAGMAALVLRPPHALDLMQLYTHVSENLPPYARPRFLRLQESL ATTETFKQQKVRMANEGFDPSTLSDPLYVLDQAVGAYLPLTTARYSALLAGNLRI

#### 1518/2682 FIGURE 1378

## 1519/2682 FIGURE 1379

 ${\tt RKMLCMDWRHSNNYCCHGRVNSVGAGLSVRFDIQLKEIYVWGKKALCSL}$ 

#### 1520/2682 FIGURE 1380A

 ${\tt TGAAGCGGGACCCGGAGCCGGCGGCGCC} \underline{{\tt ATG}} {\tt GCAATCAAATTTCTGGAAGTCATCAAGCCCTTCTGTGT}$ CATCCTGCCGGAAATTCAGAAGCCAGAGAGAAGATTCAGTTTAAGGAGAAAGTGCTGTGGACCGCTATCACCCT CTTTATCTTCTTAGTGTGCTGCCAGATTCCCCTGTTTGGGATCATGTCTTCAGATTCAGCTGACCCTTTCTATTG GATGAGAGTGATTCTAGCCTCTAACAGAGGCACATTGATGGAGCTAGGGATCTCTCCTATTGTCACGTCTGGCCT TATAATGCAACTCTTGGCTGGCGCCAAGATAATTGAAGTTGGTGACACCCCAAAAGACCGAGCTCTCTTCAACGG AGCCCAAAAGTTATTTGGCATGATCATTACTATCGGCCAGTCTATCGTGTATGTGATGACCGGGATGTATGGGGA  ${\tt CCCTTCTGAAATGGGTGCTGGAATTTGCCTGCTAATCACCATTCAGCTCTTTGTTGCTGGCTTAATTGTCCTACT}$ TTTGGATGAACTCCTGCAAAAAGGATATGGCCTTGGCTCTGGTATTTCTCTCTTCATTGCAACTAACATCTGTGA AACCATCGTATGGAAGGCATTCAGCCCCACTACTGTCAACACTGGCCGAGGAATGGAATTTGAAGGTGCTATCAT CGCACTTTTCCATCTGCTGGCCACACGCACAGACAAGGTCCGAGCCCTTCGGGAGGCGTTCTACCGCCAGAATCT TCCCAACCTCATGAATCTCATCGCCACCATCTTTGTCTTTGCAGTGGTCATCTATTTCCAGGGCTTCCGAGTGGA  ${\tt CCTGCCAATCAAGTCGGCCGCTACCGTGGCCAGTACAACACCTATCCCATCAAGCTCTTCTATACGTCCAACAT}$  $\tt CCCCATCATCCTGCAGTCTGCCCTGGTGTCCAACCTTTATGTCATCTCCCAAATGCTCTCAGCTCGCTTCAGTGG$ TGGCCTTTGCTATTACCTGTCCCCTCCAGAATCTTTTGGCTCCGTGTTAGAAGACCCGGTCCATGCAGTTGTATA CATAGTGTTCATGCTGGGCTCCTGTGCATTCTTCTCCAAAACGTGGATTGAGGTCTCAGGTTCCTCTGCCAAAGA TGTTGCAAAGCAGCTGAAGGAGCAGCAGATGGTGATGAGAGGCCACCGAGAGACCTCCATGGTCCATGAACTCAA  $\tt CCGGTACATCCCCACAGCCGGGCCTTTGGTGGGCTGTGCATCGGGGCCCTCTCGGTCCTGGCTGACTTCCTAGG$ CGCCATTGGGTCTGGAACCGGGATCCTGCTCGCAGTCACATCATCTACCAGTACTTTGAGATCTTCGTTAAGGA  ${\tt GCAAAGCGAGGTTGGCAGCATGGGGGCCCTGCTCTC} \underline{{\tt TGA}}{\tt GCCCGTCTCCCGGACAGGTTGAGGAAGCTGCTCCA}$ GAAGCGCCTCGGAAGGGGAGCTCTCATCATGGCGCGTGCTGCTGCGGCATATGGACTTTTAATAATGTTTTTGAA TTTCGTATTCTTTCATTCCACTGTGTAAAGTGCTAGACATTTTCCAATTTAAAATTTTGCTTTTTATCCTGGCAC TGGCAAAAAGAACTGTGAAAGTGAAATTTTATTCAGCCGACTGCCAGAGAAGTGGGAATGGTATAGGATTGTCCC  ${\tt CAAGTGTCCATGTAACTTTTGTTTTAACCTTTGCACCTTCTCAGTGCTGTATGCGGCTGCAGCCGTCTCACCTGT}$ TTCCCCACAAAGGGAATTTCTCACTCTGGTTGGAAGCACAAACACTGAAATGTCTACGTTTCATTTTGGCAGTAG GGTGTGAAGCTGGGAGCAGATCATGTATTTCCCGGAGACGTGGGACCTTGCTGGCATGTCTCCTTCACAATCAGG CGTGGGAATATCTGGCTTAGGACTGTTTCTCTCTAAGACACCATTGTTTTCCCTTATTTTAAAAAGTGATTTTTTT AAGGACAGAACTTCTTCCAAAAGAGAGGGATGGCTTTCCCAGAAGACACTCCTGGCCATCTGTGGATTTGTCTGT GCACCTATTGGCTCTTCTAGCTGACTCTTCTGGTTGGGCTTAGAGTCTGCCTGTTTTCTGCTAGCTCCGTGTTTAG TCCACTTGGGTCATCAGCTCTGCCAAGCTGAGCCTGGCCAAGCTAGGTGGACAGACCCTTGCAGTGATGTCCGTT TGTCCAGATTCTGCCAGTCATCACTGGACACGTCTCCTCGCAGCTGCCCTAGCAAGGGGAGACATTGTGGTAGCT ATCAGACATGGACAGAAACTGACTTAGTGCTCACAAGCCCCTACACCTTCTGGGCTGAAGATCACCCAGCTGTGT TCAGAATTTTCTTACTGTGCTTAGGACTGCACGCAAGTGAGCAGACACCACCGACTTCCTTTCTGCGTCACCAGT GTCGTCAGCAGAGAGAGACAGCACAGGCTCAAGGTTGGTAGTGAAGTCAGGTTCGGGGTGCATGGGCTGTGGTG GTGTTGATCAGTTGCTCCAGTGTTTGAAATAAGAAGACTCATGTTTATGTCTGGAATAAGTTCTGTTTGTGCTGA  ${\tt CAGGTGGCCTAGGTCCTGGAGATGAGCACCCTCTCTCTGGCCTTTAGGGAGTCCCCTCTTAGGACAGGCACTGCC}$  ${\tt CAGCAGCAGGGCAGCAGAGTTGGGTGCTAAGATCCTGAGGAGCTCGAGGTTTCGAGCTGGCTTTAGACATTGGT}$  ${\tt CCCCACTCTGACAGTGGGCACACGGCAGGCCTGCAAAGCACAGGGCCACCGCCACAGCCCGGCAGAGGGGCACACT}$ CAGCAACTCAGCAGCAGAACCAAGATGGGCCCCAGGCTCCTCCATATGGCCCAGGGCTTACCACCCTATCACACG TGGCCTTGTCTAGACCCAGTCCTGAGCAGGGGAGAGGCTCTTGAGACCTGATGCCCTCCTACCCACATGGTTCTC CCACTGCCCTGTCTGCTGCTGCTACAGAGGGGCAGGGCCTCCCCCAGCCCACGCTTAGGAATGCTTGCCTCTG GCAGGCAGGCAGCTGTACCCAAGCTGGTGGGCAGGGGGCTGGAAGGCACCAGGCCTCAGGAGGAGCCCCATAGTC  $\tt CCGCCTGCAGCCTGTAACCATCGGCTGGGCCCTGCAAGGCCCACACTCACGCCCTGTGGGTGATGGTCACGGTGG$ GTGGGTGGGGGCTGACCCCAGCTTCCAGGGGACTGTCACTGTGGACGCCAAAATGGCATAACTGAGATAAGGTGA

## 1521/2682 FIGURE 1380B

#### 1522/2682 FIGURE 1381

MAIKFLEVIKPFCVILPEIQKPERKIQFKEKVLWTAITLFIFLVCCQIPLFGIMSSDSADPFYWMRVILASNRGT LMELGISPIVTSGLIMQLLAGAKIIEVGDTPKDRALFNGAQKLFGMIITIGQSIVYVMTGMYGDPSEMGAGICLL ITIQLFVAGLIVLLLDELLQKGYGLGSGISLFIATNICETIVWKAFSPTTVNTGRGMEFEGAIIALFHLLATRTD KVRALREAFYRQNLPNLMNLIATIFVFAVVIYFQGFRVDLPIKSARYRGQYNTYPIKLFYTSNIPIILQSALVSN LYVISQMLSARFSGNLLVSLLGTWSDTSSGGPARAYPVGGLCYYLSPPESFGSVLEDPVHAVVYIVFMLGSCAFF SKTWIEVSGSSAKDVAKQLKEQQMVMRGHRETSMVHELNRYIPTAAAFGGLCIGALSVLADFLGAIGSGTGILLA VTIIYQYFEIFVKEQSEVGSMGALLF

#### 1523/2682 FIGURE 1382

CGCTGTGGGTTCCAGCCCTTCAACCAACATCTTCTGCCCTGGGTCAAGTGTACAACCGTCTTCAGATCTCATTGT ATCCAGCCTTCAGTCATCAGACATGTTCGTTCTTGGAGCAACATCCCGTTTATCACTGTACCCCTCAGTCGTACA CATGGAAAGTCCTTCGCCCACCGCAGTGAGCTGAAGCATGCCAAGAGAATCGTGGTGAAGCTCGGCAGTGCCGTG GTGACCCGAGGGGATGAATGTGGCCTGGCCCTGGGGCGCTTGGCATCTATTGTTGAGCAGGTATCAGTGCTGCAG AATCAGGGCAGAGAGATGATGCTGGTGACCAGTGGAGCCGTAGCCTTTGGCAAACAACGCTTGCGCCATGAGATC GAGGCACGAGCCTGTGCAGCTGCCGGACAGAGTGGGCTGATGGCCTTGTATGAGGCTATGTTTACCCAGTACAGC ATCTGTGCTGCCCAGATTTTGGTGACCAATTTGGATTTCCATGATGAGCAGAAGCGCCGGAACCTCAATGGAACA CTTCATGAACTCCTTAGAATGAACATTGTCCCCATTGTCAACACAAATGATGCTGTTGTCCCCCCAGCTGAGCCC AACAGTGACCTGCAGGGGGTAAATGTTATTAGTGTTAAAGATAATGATAGCCTGGCTGCCCGACTGGCTGTGGAA ATGAAAACTGATCTCTTGATTGTTCTTTCAGATGTAGAAGGCCTTTTTGACAGCCCCCCAGGTTCAGATGATGCA AAGCTTATTGATATATTTTATCCCGGAGATCAGCAGTCTGTGACATTTGGAACCAAGTCTAGAGTGGGAATGGGT GGCATGGAAGCCAAGGTGAAAGCAGCCCTCTGGGCTTTGCAAGGTGGCACTTCTGTTGTTATTGCCAATGGAACC CACCCAAAGGTGTCTGGGCACGTCATCACAGACATTGTGGAGGGGAAGAAAGTTGGTACCTTCTTTTCAGAAGTA CCTGAGCAGAGAGCAGAAATTATCCATCATCTGGCTGATCTGTTGACGGACCAGCGTGATGAGATCCTGTTAGCC AACAAAAAAGACTTGGAGGAGGCAGAGGGGAGACTTGCAGCTCCTCTGCTGAAACGTTTAAGCCTCTCCACATCC AAATTGAACAGCCTGGCCATCGGTCTGCGACAGATCGCAGCCTCCTCCCAGGACAGCGTGGGACGTGTTTTGCGC CGCACCCGAATCGCCAAAAACTTGGAACTGGAACAAGTGACTGTCCCAATTGGAGTTCTGCTGGTGATCTTTGAA TCTCGTCCTGACTGTCTACCCCAGGTGGCAGCTTTGGCTATCGCAAGTGGCAATGGCTTGTTACTCAAAGGAGGG AAGGAGGCTGCACACAGCAACCGGATTCTCCACCTCCTGACCCAGGAGGCTCTCTCAATCCATGGAGTCAAGGAG GCCGTGCAACTGGTGAATACCAGAGAAGAAGTTGAAGATCTTTGCCGCCTAGACAAAATGATAGATCTGATCATT  ${\tt CCACGTGGCTCTTCCCAGCTGGTCAGAGACATCCAGAAAGCTGCTAAGGGGATTCCAGTGATGGGGCACAGCGAA}$ GGGATCTGTCACATGTATGTGGATTCCGAGGCCAGTGTTGATAAGGTCACCAGGCTAGTCAGAGACTCTAAATGT GAATATCCAGCTGCCTGTAATGCTTTGGAGACTTTGTTAATCCACCGGGATCTGCTCAGGACACCATTATTTGAC CAGATCATTGATATGCTGAGAGTGGAACAGGTAAAAATTCATGCAGGCCCCAAATTTGCCTCCTATCTGACCTTC AGCCCCTCCGAAGTGAAGTCACTCCGAACTGAGTATGGGGACCTGGAATTATGCATTGAAGTAGTGGACAACGTT CAGGATGCCATTGACCACATCCACAAGTATGGCAGCTCCCACACGGATGTCATCGTCACAGAGGACGAAAACACA GCGGAGTTCTTCCTGCAGCACGTAGACAGTGCCTGTGTGTTCTGGAATGCCAGCACTCGCTTTTCTGATGGTTAC CGCTTTGGACTGGGAGCTGAAGTGGGAATCAGTACATCGAGAATCCACGCCCGGGGACCAGTAGGACTTGAGGGA CTGCTTACTACTAAGTGGCTGCTGCGAGGGAAGGACCACGTGGTCTCAGATTTCTCAGAGCATGGAAGTTTAAAA TATCTTCATGAGAACCTCCCTATTCCTCAGAGAAACACCAAC<u>TGA</u>AAAGAGCCAGGAAAACCCGGGAATTTTCCA AAAGGTCTTCACGTTAAACTTGTCTTATCTCAGGAGAGAGCCCGCTCTTGTCTCCCAGTTCCTGGTAGGGTCTGC CTGTTGGAAAGTGTACCTGGATGCTTCTGGGCTCCGTTTGGCAATAGCAATCTTGGCTGATGTGCACAGTCTGGC TCCCAGCTCACCCTTTTTTTTTAAAGTAAGAAAATAGTTGCTACCGATAGGGACTTTGCCAAGTCCAATTATCTT CTAGGATTGAAAGGTGCATTTTCCCCATAAAAAAGGCGAGGAAAACCCATGGCTGCTTTGTGTCACCTCAGTGAC TTACAGTCCCCCTTCGCATTTAGTTGGTACTAGAGCCAGTCATCCTTAACAAATCTTTTCGCGTTTTATTTCTTT CACATGTAGTCATCTTCAAAAAGGAAAGATTTGGAATTTTAGAAAAGGGGCCAACTCTTCTTTTTAGCATTCTCAT AATAAGCATTCCAGATGCTTGCAGCTTCCTGCATCCAGGAGATGCTGTGTCCCCCGTGATGCAGCTGGAACCCAA GCTGCAGCAGGAGATGCAAGTTTCAGGATGTTCCCCACTGAGCTGGAGGAATATCTACAGCAGTGATGCTTGAAA TTTTTGTATGAATTATTTTGTCGTCCTACCCTTTTCCTCCAAAACAAAATTAGAGGATTATTTTAATACTTTGG ATTCTTCCCCCTTTTTTGAGAAATAAAGTTTTTTATG

# FIGURE 1383

MLSQVYRCGFQPFNQHLLPWVKCTTVFRSHCIQPSVIRHVRSWSNIPFITVPLSRTHGKSFAHRSELKHAKRIVV KLGSAVVTRGDECGLALGRLASIVEQVSVLQNQGREMMLVTSGAVAFGKQRLRHEILLSQSVRQALHSGQNQLKE MAIPVLEARACAAAGQSGLMALYEAMFTQYSICAAQILVTNLDFHDEQKRRNLNGTLHELLRMNIVPIVNTNDAV VPPAEPNSDLQGVNVISVKDNDSLAARLAVEMKTDLLIVLSDVEGLFDSPPGSDDAKLIDIFYPGDQQSVTFGTK SRVGMGGMEAKVKAALWALQGGTSVVIANGTHPKVSGHVITDIVEGKKVGTFFSEVKPAGPTVEQQGEMARSGGR MLATLEPEQRAEIIHHLADLLTDQRDEILLANKKDLEEAEGRLAAPLLKRLSLSTSKLNSLAIGLRQIAASSQDS VGRVLRRTRIAKNLELEQVTVPIGVLLVIFESRPDCLPQVAALAIASGNGLLLKGGKEAAHSNRILHLLTQEALS IHGVKEAVQLVNTREEVEDLCRLDKMIDLIIPRGSSQLVRDIQKAAKGIPVMGHSEGICHMYVDSEASVDKVTRL VRDSKCEYPAACNALETLLIHRDLLRTPLFDQIIDMLRVEQVKIHAGPKFASYLTFSPSEVKSLRTEYGDLELCI EVVDNVQDAIDHIHKYGSSHTDVIVTEDENTAEFFLQHVDSACVFWNASTRFSDGYRFGLGAEVGISTSRIHARG PVGLEGLLTTKWLLRGKDHVVSDFSEHGSLKYLHENLPIPQRNTN

#### 1525/2682 FIGURE 1384

GAGAGGCGCCCAGGCGGCGGCGGCCCAGCTTCTTCTTTCCTCGCACAGCCAGGCGGCCCCTGCTCGAGT  $\texttt{CCCGCGTCGCC} \underline{\textbf{ATC}} \\ \texttt{GCCGCGGTTCCCGAGTTGCTGCAGCAGCAGGAGGAGCAGCAGCAGCAGCTGAGATCTGTAT}$ TTACAGTGCACACAAAGACCACACTGCCCACGTTTCAGAGCCCAGAGTTTTCTGTTACAAGGCAACATGAAGACT TTGTGTGGCTACATGACACTCTTATTGAAACAACAGACTATGCTGGGCTTATTATTCCACCTGCTCCTACGAAGC  ${\tt CCGACTTGATGGTCCTCGAGAGAGATGCAGAAACTGGGAGAGGTGAAGGGTCTATGACCAAAGAAGAATTTG}$ CCAAGATGAAACAAGAACTGGAAGCTGAGTATCTCGCTGTGTTTAAGAAGACTGTGTCCCCATGAAGTCTTTC TTCAGCGGCTTTCTTCTCACCCTGTTCTCAGTAAAGATCGCAACTTTCATGTTTTCCTGGAATATGATCAGGATC TAAGTGTTAGGCGGAAAAATACTAAAGAGATGTTTGGTGGCTTCTTCAAAAGTGTGGTGAAAAGTGCTGATGAAG TCCTTTTTACTGGAGTTAAGGAGGTAGATGACTTCTTTGAGCAAGAGAACATCCTTATTAACTATTACAATA GGATCAAAGATTCTTGTGTGAAAGCTGACAAAATGACCAGATCTCATAAAAATGTTGCCGATGACTATATCCACA  ${\tt CCGCAGCCTGCTTACATAGCCTGGCTTTAGAAGAGCCCACAGTCATCAAAAAGTACCTATTGAAGGTTGCTGAGC}$ TATTTGAAAAACTAAGGAAAGTAGAGGGTCGAGTTTCATCAGATGAAGATTTGAAGCTAACAGAGCTCCTCCGAT ACTACATGCTCAACATTGAAGCTGCTAAGGATCTCTTATACAGACGCACCAAAGCCCTCATTGACTATGAGAACT CAAACAAAGCTCTGGATAAGGCCCGGTTAAAGAGCAAAGACGTCAAGTTGGCTGAGGCACCACCAGCAGGAGTGCT GCCAGAAATTTGAACAACTTTCCGAATCTGCAAAAGAAGAACTGATAAATTTCAAACGGAAGAGAGGGCAGCAT TTAGAAAGAATCTAATTGAAATGTCTGAACTGGAAATAAAACATGCCAGGAACAATGTCTCCCTTTTGCAGAGCT TTTTCCTTGTGCATTTAATACCTCTGGGCAGAATCCAAATACTGGGTTCTCCCGTAGTTCGTCTTTAGTTACTAA GAAAGGGTGTAGGACACATTAGCCTTCTGGAAACAAGTAGAAGCCATCACCTGGCCCATGTCCCTACAAACCCAT GATTGTCAGGGAGGTGCCAGTTACAGCAGGTGATTCAGCTACTTGAGGTCGGTAACAGACCTTCCATTCCTCACT GAAGGTGGGGTTTGTGTTTTTGTTTTGCCCTGTTACTCCACTGGTAGTCATCTGGTGTTTTGTACTATAACAACAG CAAGAAAATCTCATTTATCTTTATATACTCTTTGCACCTCCTTTTTTTAGTCGAGATATAAATATTTGAGGGGAG AGAAATATCTACAGGTATATATGGAAACAAATAATGTGGTCTGCTTTATAAGATGGCCAGATCTACATTAGGAAA ATAAAGCATATAATAAAATAATCGTGCTACT

## 1526/2682 FIGURE 1385

MAAVPELLQQQEEDRSKLRSVSVDLNVDPSLQIDIPDALSERDKVKFTVHTKTTLPTFQSPEFSVTRQHEDFVWL HDTLIETTDYAGLIIPPAPTKPDFDGPREKMQKLGEGEGSMTKEEFAKMKQELEAEYLAVFKKTVSSHEVFLQRL SSHPVLSKDRNFHVFLEYDQDLSVRRKNTKEMFGGFFKSVVKSADEVLFTGVKEVDDFFEQEKNFLINYYNRIKD SCVKADKMTRSHKNVADDYIHTAACLHSLALEEPTVIKKYLLKVAELFEKLRKVEGRVSSDEDLKLTELLRYYML NIEAAKDLLYRRTKALIDYENSNKALDKARLKSKDVKLAEAHQQECCQKFEQLSESAKEELINFKRKRVAAFRKN LIEMSELEIKHARNNVSLLQSCIDLFKNN

#### 1527/2682 FIGURE 1386

GCCGCGCGCTGTGTCTCCGCTGCGCCCGAGGCCCCCGAGTGTCAGGGACAAAAGCCTCCGCCTGCTCCCGCA GCCGGGGCTCATCTGCCGCCGCCGCCGCCGAGGAGAGTTCGCCGCCGTCGCCGCCGTGAGGATCTGAGAGCC  $\underline{\textbf{ATG}} \texttt{TCGGCCAGCAGCCTCTTGGAGCAGAGACCAAAAGGTCAAGGAAACAAAGTACAAAATGGATCTGTACATCAA}$ AAGGATGGATTAAACGATGATGTTTTGAACCTTACTTGAGTCCACAGGCAAGGCCCAATAATGCATATACTGCC ATGTCAGATTCCTACTTACCCAGTTACTACAGTCCCTCCATTGGCTTCTCCTATTCTTTGGGTGAAGCTGCTTGG TCTACGGGGGGTGACACGCCATGCCCTACTTAACTTCTTATGGACAGCTGAGCAACGGAGAGCCCCACTTCCTA  $\tt CCAGATGCAATGTTTGGGCAACCAGGAGCCCTAGGTAGCACTCCATTTCTTGGTCAGCATGGTTTTAATTTCTTT$  ${\tt CCCAGTGGGATTGACTTCTCAGCATGGGGAAATAACAGTTCTCAGGGACAGTCTACTCAGAGCTCTGGATATAGT}$ TTGCCTCCAGCCACCATTGCTCCTCCAAAACCAGCATCTTGGGCTGATATTGCTAGCAAGCCTGCAAAACAGCAA CCTAAACTGAAGACCAAGAATGGCATTGCAGGGTCAAGTCTTCCGCCACCCCCGATAAAGCATAACATGGATATT GGAACTTGGGATAACAAGGGTCCCGTTGCAAAAGCCCCCTCACAGGCTTTGGTTCAGAATATAGGTCAGCCAACC CAGGGGTCTCCTCAGCCTGTAGGTCAGCAGGCTAACAATAGCCCACCAGTGGCTCAGGCATCAGTAGGGCAACAG ACACAGCCATTGCCTCCACCTCCACCACAGCCTGCCCAGCTTTCAGTCCAGCAACAGGCAGCTCAGCCAACCCGC TGGGTAGCACCTCGGAACCGTGGCAGTGGGTTCGGTCATAATGGGGTGGATGGTAATGGAGTAGGACAGTCTCAG GCTGGTTCTGGATCTACTCCTTCAGAACCCCACCCAGTGTTGGAGAAGCTTCGGTCCATTAATAACTATAACCCC  ${\tt AAAGATTTTGACTGGAATCTGAAACATGGCCGGGTTTTCATCATTAAGAGCTACTCTGAGGACGATATTCACCGT}$ TCCATTAAGTATAATATTTGGTGCAGCACAGAGCATGGTAACAAGAGACTGGATGCTGCTTATCGTTCCATGAAC GGGAAAGGCCCCGTTTACTTTCCAGTGTCAACGGCAGTGGACACTTCTGTGGCGTGGCAGAAATGAAATCT GCTGTGGACTACAACACATGTGCAGGTGTGTGGTCCCAGGACAAATGGAAGGGTCGTTTTGATGTCAGGTGGATT TTTGTGAAGGACGTTCCCAATAGCCAACTGCGACACATTCGCCTAGAGAACAACGAGAATAAACCAGTGACCAAC TCTAGGGACACTCAGGAAGTGCCTCTGGAAAAGGCTAAGCAGGTGTTGAAAATTATAGCCAGCTACAAGCACCC ACTTCCATTTTTGATGACTTCTCACACTATGAGAAACGCCAAAGAGGAAGAAGAAGTGT<u>TAA</u>AAAGGAACGTCA AGGTCGTGGGAAATAAAAGGCAGTTCTACACAGACTGCAGCAACGGTTGCATCTGCATATCCTAAGAGGAAAAAA TGACCTTCAAGAGAATTAGGACTTTTTTCTTAATTTCACTGACTTCAGAGACGATTGCAGACTTGCAGTTTAAGT ATTGGAATTTCACAAAAGACATAGGACTTAACTGGAAAATGAAAAGAAAAGAAAAAGAAAAACTAAACAAAAAA TCCCTCTAGGTAGTTTAGGTGAAAAATGTCCCTTTTATTTTGGCTTTGGTTGTGATTTCAGAGCATAATGCTATG  $\tt TTTTTTGTCTTTTACTATGTTTTTCGGATTTTTAAGTCCGTAAGTGCATACAGTTTTCTCTAATTTTTAAACCC$ TTTCCTCCTCCCATTTGGACATTTGCACTTGGAGAACACTTGAGTTGTGAAGGTTTTGGGCATCCACCCCAGAAA GTGGGAATTTGATTTTATCCTTCCGAACTGGAAGAACATTTTTATGAAGAATTTTTGTCTAGGAGAATATAACAG TGTTACCCAAGGTTGTGTCTTTAAGGGTGGTTCATTTTCTCTGACCTTTTGTTACTCAAAGTAAAGTACTAGGAG TCCTAAGAAATGTTCTGTTCTTGTACATTATACTGATTAAGTCAGGATTAATTTGATTTCAAAGCTGAGAACAGT GGTAAAAACTCGTTTACAGAAATGCATTTTGGAAGAGAAAAATACTGTAAAACGTGTCGTGAATGTTTCTTCAGT TGTTGAGCATCAAAAAAAAAAAAAAAAAAAAA

#### 1528/2682 FIGURE 1387

MSASSLLEQRPKGQGNKVQNGSVHQKDGLNDDDFEPYLSPQARPNNAYTAMSDSYLPSYYSPSIGFSYSLGEAAW STGGDTAMPYLTSYGQLSNGEPHFLPDAMFGQPGALGSTPFLGQHGFNFFPSGIDFSAWGNNSSQGQSTQSSGYS SNYAYAPSSLGGAMIDGQSAFANETLNKAPGMNTIDQGMAALKLGSTEVASNVPKVVGSAVGSGSITSNIVASNS LPPATIAPPKPASWADIASKPAKQQPKLKTKNGIAGSSLPPPPIKHNMDIGTWDNKGPVAKAPSQALVQNIGQPT QGSPQPVGQQANNSPPVAQASVGQQTQPLPPPPPPQPAQLSVQQQAAQPTRWVAPRNRGSGFGHNGVDGNGVGQSQ AGSGSTPSEPHPVLEKLRSINNYNPKDFDWNLKHGRVFIIKSYSEDDIHRSIKYNIWCSTEHGNKRLDAAYRSMN GKGPVYLLFSVNGSGHFCGVAEMKSAVDYNTCAGVWSQDKWKGRFDVRWIFVKDVPNSQLRHIRLENNENKPVTN SRDTQEVPLEKAKQVLKIIASYKHTTSIFDDFSHYEKRQRGRRKC

#### 1529/2682 FIGURE 1388

GTGAAGAGAGGCGCGGCGTGACTGAGCTACGGTTCTGGCTGCGTCCTAGAGGCATCCGGGGCAGTAAAACCGCTG  $\texttt{CGGCTTCGGCCACAGCTTTTTTCTCAAGGTGCA} \textbf{\underline{ATG}} \textbf{AAGCCTTCCACACTTTCTGTGTTGTCCTTCTGGTGTT}$ TGGGAGTGTCTCTGAAGCCAAGTTTGATGATTTTGAGGATGAGGAGGACATAGTAGAGTATGATGATAATGACTT CGCTGAATTTGAGGATGTCATGGAAGACTCTGTTACTGAATCTCCTCAACGGGTCATAATCACTGAAGATGATGA AGATGAGACCACTGTGGAGTTGGAAGGGCAGGATGAAAACCAAGAAGGAGATTTTGAAGATGCAGATACCCAGGA GGGAGATACTGAGAGTGAACCATATGATGATGAAGAATTTGAAGGTTATGAAGACAAACCAGATACTTCTTCTAG CAAAAATAAAGACCCAATAACGATTGTTGATGTTCCTGCACACCTCCAGAACAGCTGGGAGAGTTATTATCTAGA AATTTTGATGGTGACTGGTCTGCTTATATCATGAATTACATCATTGGGAAGAATAAAAACAGTCGCCTTGC  ${\tt AGAAGCCACAAGCACAGGAAAGTTGAACCAGGAGAATGAGCACATCTATAACCTGTGGTTCTGGTCGAGTGTG}$ CTGTGAGGGCATGCTTATCCAGCTGAGGTTCCTCAAGAGACAAGACTTACTGAATGTCCTGGCCCGGATGATGAG TGGAGCAAAGTATGGACTGCCGGACTCTTTGGCCATCCTGTCAGAGATGGGAGAAGTCACAGACGGAATGATGGA TACAAAGATGGTTCACTTTCTTACACACTATGCTGACAAGATTGAATCTGTTCATTTTTCAGACCAGTTCTCTGG TCCAAAAATTATGCAAGAGGAAGGTCAGCCTTTAAAGCTACCTGACACTAAGAGGACACTGTTGTTTACATTTAA TGTGCCTGGCTCAGGTAACACTTACCCAAAGGATATGGAGGCACTGCTACCCCTGATGAACATGGTGATTTATTC  ${\tt AGAGAAGGAGCGAATCATGAATGAGGAAGATCCTGAGAAACAGCGCAGGCTGGAGGAGGCTGCATTGAGGCGTGC}$  $\mathtt{AAAAAAGAAGTTGGAAAAGAAGCAAATGAAAATGAAACAAATCAAAGTGAAAGCCATG\underline{\mathbf{TAA}}\mathtt{AGCCATCCCAGAGA}$ TTTGAGTTCTGATGCCACCTGTAAGCTCTGAATTCACAGGAAACATGAAAAACGCCAGTCCATTTCTCAACCTTA AATTTCAGACAGTCTTGGGCAACTGAGAAATCCTTATTTCATCATCTACTCTGTTTGGGGTTTTGGGGTTTTACAG ATAAAAGGAATGATCTATGAAATCTGTGTAGGTTTTAAATATTTTAAAAATTATAATACAAATCATCAGTGCTTT TAGTACTTCAGTGTTTAAAGAAATACCATGAAATTTATAGGTAGATAACCAGATTGTTGCTTTTTGTTTAAACCA AGCAGTTGAAATGGCTATAAAGACTGACTCTAAACCAAGATTCTGCAAATAATGATTGGAATTGCACAATAAACA AATTTCAGGGACCCAGAACATAATGTAGTATATGTTTTTAGGTGGGAGATGCTGATAACAAAATTAATAGGAAGT  $\tt CTGTAGGCATTAGGATACTGACATGTACATGGAAAATTCTAGGGACAGGAGCATCATTTTTCCTTACCTGATAC$ CACGAACCAGTGACAACGTGAATGCTGTATTTTAAGTGGTTGTATGTTTATTTTCTTGAGTAACAAATGCATGAA AAATTAATGCTTCACCTAGGTAAGATCATTGGTCTGTGTGAAATCACAAATGTTTTTTCCTTCTTGGTTGCTGCA  ${\tt GCCTGGGTGGATGTTCATGGAGAAGCTCTGTTCTCTATATTATGGCTGTGCCGTTGCTTCTCCCTCTGCTTTT}.$ ATCTTTTCCACAGTTGAGGCTGGGTATGTTCTTTCAAAGAAATGGCCATGAATATGTGTAAGTATACTTTTGAAA TGCACGAGCACTTAGCTTGTTCAGATCTCTGCATTTTATAAATGCTTCTTACCAAGAAAGCATTTTTAGGTCATT GCTTGTACCAGGTAATTTTTGCCGGGGATGGGTAAGGGTTGGGTTTTCTGGTGGGAGTGGGGTGGTATTTT TTGTTGATGCTTTAGTGCAGGCCTGTTCTGAGGCAATAACAAGTTGCTGTGAAAACAGCATGTGCTGCCTTT GTAACTGCATGGAAACTTTTCACATGGGTTTTTCTCCAAGTTAATACAGAAATATGTAAACTGAGAGATGCAAAT TTATAGTAGTGGCCTTGTTTTACAAACCTTTAAATTACATTTTAGAAATCAAAGTTGATAGTCTTAGTTATCTTT TGAGTAAGAAAAGCTTTCCTAAAGTCCCATACATTTGGACCATGGCAGCTAATTTTGTAACTTAAGCATTCATAT 

#### 1530/2682 FIGURE 1389

MKAFHTFCVVLLVFGSVSEAKFDDFEDEEDIVEYDDNDFAEFEDVMEDSVTESPQRVIITEDDEDETTVELEGQD
ENQEGDFEDADTQEGDTESEPYDDEEFEGYEDKPDTSSSKNKDPITIVDVPAHLQNSWESYYLEILMVTGLLAYI
MNYIIGKNKNSRLAQAWFNTHRELLESNFTLVGDDGTNKEATSTGKLNQENEHIYNLWCSGRVCCEGMLIQLRFL
KRQDLLNVLARMMRPVSDQVQIKVTMNDEDMDTYVFAVGTRKALVRLQKEMQDLSEFCSDKPKSGAKYGLPDSLA
ILSEMGEVTDGMMDTKMVHFLTHYADKIESVHFSDQFSGPKIMQEEGQPLKLPDTKRTLLFTFNVPGSGNTYPKD
MEALLPLMNMVIYSIDKAKKFRLNREGKQKADKNRARVEENFLKLTHVQRQEAAQSRREEKKRAEKERIMNEEDP
EKQRRLEEAALRRAKKKLEKKQMKMKQIKVKAM

#### 1531/2682 FIGURE 1390A

GGCACGAGCGAGGTTCGGGCTGGTTGTTCCGTTGCGAGCTGCAGCTGCGATCTCTGTGGTAGGCCCAGAAGTGTA TGCTGACTTGTAAAGTGAAGAAGCCAGTGGTGCTGCGGGTGTTCTTTTGGGGTAGTGTCTGGGATCCAGTACGAG TTGAATCATTGTTCAAATAAGGTGTAATTGAAAAGTGATCCTCTCTCAGAG<u>ATG</u>TCAAAAACAAACAAATCCAA GTCTGGATCTCGCTCTCTCGCTCAAGATCTGCATCAAGATCTCGTTCTCGTTCATTTTCGAAGTCTCGGTCCCG AAGCCGATCTCTCTCTCGTTCAAGGAAGCGCAGGCTGAGTTCTAGGTCTCGTTCCAGATCATATTCTCCAGCTCA TAACAGAGAAAGAAACCACCCAAGAGTATATCAGAATCGGGATTTCCGAGGTCACAACAGAGGCTATAGAAGGCC CTATTATTTCCGTGGGCGTAACAGAGGCTTTTATCCATGGGGCCAATATAACCGAGGAGGCTATGGAAACTACCG CTCAAATTGGCAGAATTACCGGCAAGCATACAGTCCTCGTCGAGGCCGTTCAAGATCCCGGTCCCCAAAGAGAAG GTCCCCTTCACCAAGGTCCAGGAGCCATTCTAGAAACTCTGATAAGTCGTCTTCTGACCGGTCAAGGCGCTCCTC ATCCTCCCGTTCTTCCTCCAACCATAGCCGAGTTGAATCTTCTAAGCGCAAGTCTGCAAAGGAGAAAAAGTCCTC TTCTAAGGATAGCCGGCCATCTCAGGCTGCCGGGGATAACCAGGGAGATGAGGTCAAGGAGCAGACATTCTCTGG AGGCACCTCTCAAGATACAAAAGCATCTGAGAGCTCGAAGCCATGGCCAGATGCCACCTACGGCACTGGTTCTGC ATCACGGGCCTCAGCAGTTTCTGAGCTGAGTCCTCGGGAGCGAAGCCCAGCTCTCAAAAAGCCCCCTCCAGTCTGT GGTGGTGAGGCGGCGGTCACCCCGTCCTAGCCCCGTGCCAAAACCTAGTCCTCCACTTTCCAGCACATCCCAGAT GGGCTCAACTCTGCCGAGTGGTGCCGGGTATCAGTCTGGGACACACCAAGGTCAGTTCGACCATGGTTCTGGGTC CCTGAGTCCATCCAAAAAGAGCCCTGTGGGTAAGAGTCCACCATCCACTGGCTCCACATATGGCTCATCTCAGAA GGAGGAGAGTGCTGCTTCAGGAGGAGCAGCCTATACAAAGAGGTATCTAGAAGAGCAGAAGACAGAGAATGGAAA AGATAAGGAACAGAAACAAATACCGATAAAGAAAAAATAAAAGAGAAAGGGGAGCTTCTCTGACACAGGCTT AGATAAGGACAAAGCTAAGGGAAGAAAGGAATCTGAGTTTGATGATGAACCCAAATTTATGTCTAAAGTCATAGG GCAGAGAAAAACAGAGGAGCTGGAGGAGGAGTCTTTCCCAGAGAGATCCAAAAAGGAAGATCGGGGCAAGAGAAG CGAAGGTGGGCACAGGGGCTTTGTGCCTGAGAAGAATTTCCGAGTGACTGCTTATAAAGCAGTCCAGGAGAAAAG CTCATCACCTCCCCCAAGAAAGACCTCTGAGAGCCGAGACAAGCTGGGAGCGAAAGGAGATTTTCCCACAGGAAA GTCTTCCTTTTCCATTACTCGAGAGGCACAGGTCAATGTCCGGATGGACTCTTTTGATGAGGACCTCGCACGACC CAGTGGCTTATTGGCTCAGGAACGCAAGCTTTGCCGAGATCTAGTCCATAGCAACAAAAAGGAACAGGAGTTTCG TTCCATTTTCCAGCACATACAATCAGCTCAGTCTCAGCGTAGCCCCTCAGAACTGTTTGCCCCAACATATAGTGAC CATTGTTCACCATGTTAAAGAGCATCACTTTGGGTCCTCAGGAATGACATTACATGAACGCTTTACTAAATACCT AAAGAGAGGAACTGAGCAGGAGGCAGCCAAAAACAAGAAAAGCCCAGAGATACACAGGAGAATAGACATTTCCCC CAGTACATTCAGAAAACATGGTTTGGCTCATGATGAAATGAAAAGTCCCCGGGAACCTGGCTACAAGGCTGAGGG ACGAGGTAAATCGAGAGAATCAGTGGATTCCCGAGACTCCAGTCACTCAAGGGAAAGGTCAGCTGAAAAAAACAGA GAAAACTCATAAAGGATCAAAGAAACAGAAGAAGCATCGGAGAGCAAGAGACAGGTCCAGATCCTCCTCTTC CTTTCAGTTTCGAGCCAGAGGAAGAGGCTGGGGCAGAGGCAACTACTCTGGGAACAATAACAACAACAACAACAA CGATTTTCAAAAAAGAAACCGGGAAGAGGAGTGGGACCCAGAGTACACACCCAAAAGCAAGAAGTATTACTTGCA TGATGACCGTGAAGGCGAAGGCAGTGACAAGTGGGTGAGCCGGGGCCGGGGCCGAGGAGCCTTTCCTCGGGGTCG GGGCCGGTTCATGTTCCGGAAATCAAGTACCAGCCCCAAGTGGGCCCATGACAAGTTCAGTGGGGAGGAAGGGGA GATTGAAGACGACGAGAGTGGGACAGAGAACCGAGAAGAGAAGGACAATATACAGCCCACAACCGAG<u>T**AG**</u>GGGCC ACCCTTGACGGGATTCCTGCCCAGGGGAGAGAGGCGCTGGGAAGATGGCTGGTGAGGAGCTTAACAGAGGAACCT CGCTGTCTCCCACTGGACAGAGGAGGCTGGCCATGGGGCCCAGGGTCAGGCCCAGCTTTTGAGCAGAATACAAC TGGATTTTTGTTTCCTATTAGAAACCAACAGTTTTGTTCTAATTTCATTTCATTTGGAGCTAAGATGACTAATTT AGGCATATGTAGTAATATTAGAAACATTTAATTTGGGAAACTTTGATTCTTGAAAGAGAAAAACAAAAGCATGTGA

1532/2682 FIGURE 1390B

ATAAACTTTGCTCGTGCC

#### 1533/2682 FIGURE 1391

MSKTNKSKSGSRSSRSRSASRSRSRSRSFSKSRSRSRSRSRSRSRSRSRSRSRSRSSYSPAHNRERNHPRVYQNRDFRG
HNRGYRRPYYFRGRNRGFYPWGQYNRGGYGNYRSNWQNYRQAYSPRRGRSRSRSPKRRSPSPRSRSHSRNSDKSS
SDRSRRSSSSRSSSNHSRVESSKRKSAKEKKSSSKDSRPSQAAGDNQGDEVKEQTFSGGTSQDTKASESSKPWPD
ATYGTGSASRASAVSELSPRERSPALKSPLQSVVVRRRSPRPSPVPKPSPPLSSTSQMGSTLPSGAGYQSGTHQG
QFDHGSGSLSPSKKSPVGKSPPSTGSTYGSSQKEESAASGGAAYTKRYLEEQKTENGKDKEQKQTNTDKEKIKEK
GSFSDTGLGDGKMKSDSFAPKTDSEKPFRGSQSPKRYKLRDDFEKKMADFHKEEMDDQDKDKAKGRKESEFDDEP
KFMSKVIGANKNQEEEKSGKWEGLVYAPPGKEKQRKTEELEESFPERSKKEDRGKRSEGGHRGFVPEKNFRVTA
YKAVQEKSSSPPPRKTSESRDKLGAKGDFPTGKSSFSITREAQVNVRMDSFDEDLARPSGLLAQERKLCRDLVHS
NKKEQEFRSIFQHIQSAQSQRSPSELFAQHIVTIVHHVKEHHFGSSGMTLHERFTKYLKRGTEQEAAKNKKSPEI
HRRIDISPSTFRKHGLAHDEMKSPREPGYKAEGKYKDDPVDLRLDIERRKKHKERDLKRGKSRESVDSRDSSHSR
ERSAEKTEKTHKGSKKQKKHRRARDRSRSSSSSSSSSSSSSSYKAEEYTEETEEREESTTGFDKSRLGTKDFVGPSER
GGGRARGTFQFRARGRGWGRGNYSGNNNNNSNNDFQKRNREEEWDPEYTPKSKKYYLHDDREGEGSDKWVSRGRG
RGAFPRGRGFMFRKSSTSPKWAHDKFSGEEGEIEDDESGTENREEKDNIQPTTE

#### 1534/2682 FIGURE 1392

GCCGGCACC<u>ATG</u>AAGATCTGGACTTCGGAGCACGTCTTTGACCACCCGTGGGAAACTGTTACAACAGCTGCAATG AAGTTGCACAGCCACAGACTTCTCAGCACAGAGTGGGGACTGCCTTCCATTGTGAAGTCTCTTATTGGTGCAGCA AGAACGAAAACATATGTGCAAGAACATTCTGTAGTTGATCCTGTAGAGAAAACAATGGAACTTAAATCTACTAAT ATTTCATTTACAAACATGGTTTCAGTAGATGAGAGACTTATATACAAACCACATCCTCAGGATCCAGAAAAAACT GTTTTGACACAAGAAGCCATAATTACCGTGAAAGGAGTTAGCCTCAGCAGTTACCTTGAAGGACTGATGGCAAGT ACGATATCCTCAAATGCTAGTAAAGGCCGAGAAGCAATGGAATGGGTAATACATAAATTAAATGCTGAGATTGAA GAACTGACAGCCTCAGCAAGAGGAACCATAAGGACTCCAATGGCAGCAGCAGCGTTTTGCAGAGAAGTGATCGTG GATGCAGGGCCTCTAAATAAAAGGGATCATCTGAAATTAATGTTGTTTGAAATTACTATCTGATTTTGAGGGTTC CAGTATTTCTGTGAAAATTCAACAAGAACTCCTTGGAAACTGGTATTGATATTCAGTCTCCTTAAGGTAGATTTT TCAAGCTTTTCATACATTGGAACTCCACCTGACTTTGGACCAACCCCAGAACAGAGCAGAGCCACCTCCTATAGA  $\tt CGCCCATTGCCCTGCTGCTACACTTCAGCAGCTTGCACAAGGGAGCTCACTTAAAAGGAGAAATTGTGTAGTT$ TTAAAATATATTTTGTGTAAAATACCTTACTATGCTATAAAACCACCATTAAAAACCAGTGTTTTGATTTGGTACT TAAATATTTTTGGAGTGAAAATTATCACTAAAGTAACATGACTCCAACAAAAGTATGGTTTCATTATAAAAGAGT  ${\tt ACTGTATTGATTTGCCCAAGTTTTGTAACTTAGTAAAGGTATTAACTTCCTTGGATTTGTACTTTGTGATTTAGT}$ ATGCTGTATCGTGGGCTGGTTATGTTAACTGAAAAAAATAAAGTCATTACCTGAGTTTTGCAGTGCTCTAACTTA AACAGAAGAACAGCTGTTCACATCTTTTAGCATTTTACATTTGCCTAACTTAAAAATTGCCATGTGTCAAAATCA TGGTTTTGTAATTGCTAAGGCATGATATGTCAGGTTATTTGAATATAATTACTTTTTGAAGTAATTGTGACCACA AAACATCTTTTTTACATGAAGGAGCTGTGTATCATTTGAAATTACTCAAATGATGTCTTGCTCTGAGGCATAAAT GTAGGGGGAGGCTTGGCCTGAAACTAACCACTGAGTGAATTGCACTGCAGGTTTTACTTAACGGGAATTCCTTAT TTGGGATGTCAAGAGGGCAGCTGCAAACTGAAAAACAATCCAGTAAATGTACTTTGTTTTATGTATTGTAGCAGG CAATTAACTACTAAATAATAGCTTTGACATTTGCAATTGTTGCATAGAGACTATTTTTGCTAGAAGATGATTAGC TCTTGCCTTTATTTTACAGTGCTTAGTGATAAACTTCTAGTCATGTTTCCTATCCAAGAGACCAGTTAATATA TGTACATAAACCACAGAAATAGTATAACACACTATTTTTAAATTATCGTTTTCCTACTTAAATTTTGTTTAGCTT TTTTTACAAGTGAAATAACATTTCAGCTAAATAAAACATCGCTAAATAATTGATATTTGATGAAAAATCTGCTTTG TATAATTTCTGTAAATTATCCTTGTTCTGAAAAAGGTGTAATGCCCTAATATTTTTAAATCCTTATCCTTTGATT TGCACAACAAGCAAATGAATTTAAGAGAACTAAACTGGAATAAGTGTTCATAAATGAAACCCTTGGACTATTTAA 

## 1535/2682 FIGURE 1393

 $\label{thm:likelik} MKIWTSEHVFDHPWETVTTAAMQKYPNPMNPSVVGVDVLDRHIDPSGKLHSHRLLSTEWGLPSIVKSLIGAARTK\\ TYVQEHSVVDPVEKTMELKSTNISFTNMVSVDERLIYKPHPQDPEKTVLTQEAIITVKGVSLSSYLEGLMASTIS\\ SNASKGREAMEWVIHKLNAEIEELTASARGTIRTPMAAAAFCREVIVTVGRQHRVLQVSPN$ 

#### 1536/2682 FIGURE 1394

ATATGATCCGCTCGGCTTCCTGGGTCTGGCTGCCGCCGGCGGTGTCCGCCCGTGTCGCCCCGGGGCACCAA GGAGCCGTTGGAGGGTCCGGGGGGGGCCCGCTCGTGTGGAAGTCGTCGACGCCGCCGCTCGTCCCCGT  $\texttt{CCGTTCTCGCTCCCGGCCGCCATC} \underline{\textbf{ATG}} \texttt{CTGGCGCTCATCTCCCGCCTGCTGGACTGGTTCCGTTCGCTCTTCTGG}$ AAGGAAGAGATGGAGCTGACGCTCGTGGGGCTGCAGTACTCGGGCAAGACCACCTTCGTCAATGTCATCGCGTCA GGTCAATTCAGTGAAGATATGATACCCACAGTGGGCTTCAACATGAGGAAGGTAACTAAAGGTAACGTCACAATA  ${\tt AAGATCTGGGACATAGGAGGACAACCCCGATTTCGAAGCATGTGGGAGCGGTATTGCAGAGGAGTCAATGCTATT}$ GTTTACATGATAGATGCTGCAGATCGTGAAAAGATAGAAGCTTCCCGAAATGAGCTACATAATCTTCTAGATAAA CTAATTGAAAAAATGAATCTGTCTGCTATTCAGGATAGAGAAATTTGCTGCTATTCAATTTCTTGCAAAGAAAAG GATAATATAGATATCACACTTCAGTGGCTTATTCAGCATTCAAAATCTAGAAGAAGC<u>T**GA**</u>AGCATCTCTTGAAGT CTTCCAGTCCTTCTTGGCTATAATCCTAGAATTATTGTCCGTTCCTCTGAAGTAATTCCCAGAATACGGTCCTTC CTAAACCCCAGAAATTGCCTTTTTCAGAGTCTATTTCTCATGTGCACTGCTGAAGATGAATATCCCTAATCCTTC TCTTAAACCATGTGTAGAGCTTTAAAAACAGAAAAAAACCCCATATACTTATGACCATCTTAAATCAAGAAAAT AGAAAACCTTTAGGCGTGAATGACTCATGTGGGATATATGTAAACATAATGTTTATTTTATCTCACAAATGCATG TGAAATGTATAATTACATCTTAGGAATCCAAAATGGTCTGCAGAGAGTGAGCGGAGGCACCAGATCAATGTTGGT TCTTTGCACTGGTGAGATTCTGCCTGATGAATATTAAAGATATCCTGCTTTCTGAGAACTCTATCACCAGATGGC AGTTGGGATATGGGAGGAACTAAAGCATCCTGTTTTGTATCTGTCCAGATCATTATTTCTGTCTCTTGTTTTTTC TTCCTGGTTCAGGATACTTTTTTAAGGGGTTGAGAATTGAAGATTTTCCAAAAGCGTTCATGAATTTAGAGCATT AATCAGTGCTGCATGACACTCTTAACTCCTGACTTTTTATATCCAGTCATAAAGTTGACTTTCAGCACAAAA GATACTTATAAACAAATAAAAATTTTTATTTTTCTCTCTTACTGATGTAAGCTTTGGCACTCTTTTGACTGGTG CTAAAAACTTCAAATGGACATGTTTTGTAGTTTAGCGACTTCCGTATACATAAAGGGACATATTAATACTGGTTC ATTTGTAAATTATTATTCATATAGACCACTGTAGTAGATAAAACTCTATGGTACACCTGCTTATGTGTTGCCTCA CACTGTGTGTGATTTTGTTTGTTTAAGCAGCACTTATGTAGACTGCATTTCCAAATGTGTTGAGCACTCGG AGTGTAGTCAACAGTAAGTTCTTTTAATGAATATCAGTTTTAATTTATAGACTGCCATGGCCTTAAAAATATTCT GTACAATATACTGCACTGTGTTGCACAGACACTACTTGCTTTTCTCCATTCATATTTTTATGAGTAGAATCTGGG GGGATATTTAAACTTGCTACTGTTGTTCAACACCATTAATGGTCAGTGTGAACCATTACAAAGAATGTGGCAACT TGCTTGTGCCTAAAAGGAGGAATTGGAACTAGAATGTGTGACTCTGTGGGGACTGCATAGGTTTGTTAATTGACC TATAGCTAAACCTTAATGTGTTTGTGTGTCTATACATTGCTTTCCGCATTTCAAGACATCCAGACGCTATTACCA ACATTTTCCTGTGCATTAACCTCTGCATGTGAAAACTTTTAACAGTTACTGAACTATGTAAATATGTGAATTTTT TTATTTAGGTGGATGCATTTTTTGTCTGTTTACTGCTCTTCTCAGCTTTATTCAATAAACTTGCATTTTAAGGGT TGTATTGGCAATTTTAACTTAAAATGTGCATCATGATGGAAGGTGCAGACTTTTTTGGAAGTTTCCGAGAGGAGG GTCTATAGACCATTTGTCAGAAATCAGATCAGCCCTCAAAGAATGGGGTCTGTGGGCTAGTTAAAATAGAAATAA **ACTTTTAAAATATCCACAG** 

### 1537/2682 FIGURE 1395

MLALISRLLDWFRSLFWKEEMELTLVGLQYSGKTTFVNVIASGQFSEDMIPTVGFNMRKVTKGNVTIKIWDIGGQ PRFRSMWERYCRGVNAIVYMIDAADREKIEASRNELHNLLDKPQLQGIPVLVLGNKRDLPNALDEKQLIEKMNLS AIQDREICCYSISCKEKDNIDITLQWLIQHSKSRRS

#### 1538/2682 FIGURE 1396

#### 1539/2682 FIGURE 1397

 ${\tt MADVLDLHEAGGEDFAMDEDGDESIHKLKEKAKKRKGRGFGSEGSRARMREDYDSVEQDGDEPGPQRSVEGWILF} \\ {\tt VTGVHEEATEEDIHDKFAEYGEIKNIHLNLDRRTGYLKGYTLVEYETYKEAQAAMEGLNGQDLMGQPISVDWCFV} \\ {\tt RGPPKGKRRGGRRRSRSPDRRRR} \\$ 

#### 1540/2682 FIGURE 1398A

GAGCCGCTGAAGAGGAGCTGGGCCGGCCGGCCCGGCCGCGCTCGGCCCGGATCGCCTCCGCCCGGTCTTCGC  ${\tt CGGCCCCGGCCCTGGCGAG}$ TCGCCCAAAATGGAGTTAATCCTGACTGGGAGAAGAAGTAATTGAGTATTTTAAGGAAAAGCTGAAGGAAAATA ATGCTCCTAAGTGGGTACCATCACTGAACGAAGTTCCCCTTCATTATTTGAAACCTAATAGTTTTGTGAAATTTC GTTGCATGATTCAGGATATGTTTGACCCTGAGTTTTACATGGGAGTTTATGAAACGGTTAACCAAAACACAAAAG  ${\tt CACATGTTCTTCATTTTGGAAAATATAGAGATGTAGCAGAGTGTGGGCCTCAACAAGAACTTGATTTAAACTCTC}$ CACGAAATACCACTTTGGAAAGACAGACTTTCTATTGTGTTCCGGTGCCTGGGGAATCTACGTGGGTAAAAGAAG CCTATGTTAATGCAAACCAAGCTCGAGTCAGTCCCTCAACATCCTACACTCCTAGTCGCCACAAGAGGAGTTATG AAGATGATGACGATATGGACCTACAGCCCAATAAGCAGAAAGACCAACATGCAGGTGCCAGACAAGCAGGGAGTG TTGGTGGTCTTCAATGGTGTGGAGAGCCAAAACGTTTAGAAACTGAAGCTTCTACTGGGCAACAGCTGAACTCTC TGAACTTGTCTTCTCCTTTTGATTTGAATTTTCCATTGCCAGGAGAAGGGCCCTGCATGCCTTGTGAAGGTTT GTATACTGAATAATGATGAAAGGGATGCCTCTGCACTGCTGGATCCGATGGAGTGCACAGACACAGCAGAGGAGC AGAGAGTACACAGTCCTCCTGCTTCATTAGTGCCGAGAATTCATGTGATCTTAGCCCAGAAGTTGCAACACATCA TGTCTCCAGTCAGAGCAGAACTTCTTGGGTTCCTTACTCATGCCCTTCTGGGGGATAGTTTGGCTGCTGAATACC TTATATTACATCTCATCTCCACAGTATATACAAGAAGAGATGTCCTTCCACTAGGAAAATTTACAGTTAACTTGA GTGGTTGCCCACGGAATAGTACCTTCACAGAACACTTGTATCGAATTATTCAACATCTTGTTCCAGCATCTTTTC TCAGTGGGCTCCTCCAGCTGCCCAGCAATACTTCCCTTGTAATCGATGAGACTCTCCTGGAACAGGGGCAGCTGG ATACCCCAGGTGTTCATAATGTGACAGCCCTGAGCAACCTCATAACGTGGCAGAAGGTGGATTATGACTTCAGCT ACCATCAGATGGAATTCCCCTGCAATATTAACGTTTTCATTACTTCGGAGGGGAGGTCACTCCCCGGCAGACT GCCAGATTCACTTACAGCCCCAGCTAATTCCACCAAACATGGAGGAGTACATGAACAGCCTTCTCTCAGCGGTGC TGCCTTCCGTGCTGAACAAATTCCGCATTTATCTAACTCTTTTGAGATTCTTGGAATATAGCATATCTGATGAAA TAACCAAGGCAGTTGAAGATGACTTTGTGGAAATGCGGAAGAACGACCCTCAGAGCATCACTGCTGATGATCTTC ACCAGCTGCTCGTGGTGGCTCGGTCTCTCTCAGTGCTGGTCAGACACGCTGTCAAGAGAACGATGGCTGA GATGTAATACCTATGAAGAGTAATGGGCAAACTGTAGCCACATAATTGTAAAATTCAGATATTCATTTATACCAC  ${\tt ATTGTTTTATAGGTAATTTCTATCACAAACCAGTGACATTTCCTGAAATCAAGCCTGGTAACACCTGATGTTTAT}$ TTAGTAATGATGTAAAAAAAGTATTTGATATTAAAAGTTTAATATTGATAATGTTGCTGATTGTACCATTTCCTT AGCTTCAGCTGAGTCATAGGCCAGACTGTTGAAATGCTGAAATGAAGGATGTTGTTGCAGTTTCAAAGTCAGAGG AATCGTGCTTCGGATTTCTTATGTTTTCTAGTTCTCTGTTTTTCCAGTTCACAGTGGGTTGGGGTGCATTCAGTA GTCCATCTTTGGGGAACGGAGGCGTACTTGCCATTGATTCACATGACTACATGAAATTCTGTACTGTCATTTCCC AGATGTTTGGCCACAGAAACTTTTTCCCACTTAACATTTGTTAACAGCCTGCAAAACTAAACTTGTACATGGCAG TGGTTCCCAGACTTTTGTATTTTATGGACCGGTAGTAATATTTCCAAAAATCTGGGGTACTATAAGGTTGCCAAT  $\tt CTGAATAAGAGGAGTCCTTTAAACGGAATGAATGTGGCTTTTGGGGGCAAAAGAAACCAAGACACTACATTGTCT$ TTATTTTCTCCTATCCCAGTGCATTTGAGAACCATGCATAAGGGAATGCTGTGCTACAAAGCTGTGCCCAAATAT GAAAACAAAATAGGAAACTTAAAAAGCAATACCCCCTTTAGAAAGTTTTTATTTTCTTAAATGTCATTGAGTTGC TTTGATTCTATTGGATTTTTGGCATTTTTTATGGGATCATCAGTTGGTTCCAAGTATGTTAGATCAGCTAACATC TGCTACTCCAGTAACAGCCTCGTACAACTGCAGGTAGGTTTTCTCCAGACCAATTAGTTTTAATAGAGCAAACTA ACAACAGACTGTAGTAGCATGGTTATGGCAACCAGAATCTTCAGAAAGGTTAGGACATTACTTTTTAAGCTGTCA GTGGTATCAAATAACTTACCTAGTTGGAGGCAGATAAAGGATCCCTTACGTTTTTTCCTATAAGGCCTAAATTGA AATTGTTAACCAAGGAAACAGGGTCAGCCTTGAAAAATCAAGGAATTCATTGTACCTAATAACTGAAGTAAAAAT AACTAGTTGTTCAACTTTTCCTAAACTCAAATCTATTTTTATAAACAAATGTAAATAATGTTTATTAGAGTTG 

#### 1541/2682 FIGURE 1398B

ATTTGTGAGGATAAAATACATTTCTTTAATTGTCCTAGAGCAAAGTACATTAGTCACCATGTGTTTTTTGTGCC
AATGTAACTTGTAATTTACCAAAGAAAAATACATACATTGCTTGGTCTTGCAGAAAAAGTTCCCTTGAAAGAACCT
TTCCAATAAATAAAACGTCCCAAATTAGCAGTACCTTGGGCTGTTTTTCATGAGTAAGAAGATTCACCATCCCAT
GTGATCTGTGTGGAAAAAAGACCATGTCCTCTTGGTGGAAGACATGAGAGAGCTGAACTGAAGTGGAGGAGGTGGT
GCAAGAGGGACCTTCCTGCTCAAGGCCCGCCCAGGCAGCGGAATAGAGTGCAGTGCTTGGCTGCAGAAACCCTTT
GTCCCTCACCTATATATACACGGACAGTCAAGTTTGTTGCTCTAACGTAAGGCACAGCGTTAATCCTGTATGGCC
AGGAAACTGAGTAGACTCCTGTGTAACCCTGTTTGGAACTTTTCCTTTAAAATGATTTTTC

#### 1542/2682 FIGURE 1399

MPCGEDWLSHPLGIVQGFFAQNGVNPDWEKKVIEYFKEKLKENNAPKWVPSLNEVPLHYLKPNSFVKFRCMIQDM FDPEFYMGVYETVNQNTKAHVLHFGKYRDVAECGPQQELDLNSPRNTTLERQTFYCVPVPGESTWVKEAYVNANQ ARVSPSTSYTPSRHKRSYEDDDDMDLQPNKQKDQHAGARQAGSVGGLQWCGEPKRLETEASTGQQLNSLNLSSPF DLNFPLPGEKGPACLVKVYEDWDCFKVNDILELYGILSVDPVLSILNNDERDASALLDPMECTDTAEEQRVHSPP ASLVPRIHVILAQKLQHINPLLPACLNKEESKTCKFVSSFMSELSPVRAELLGFLTHALLGDSLAAEYLILHLIS TVYTRRDVLPLGKFTVNLSGCPRNSTFTEHLYRIIQHLVPASFRLQMTIENMNHLKFIPHKDYTANRLVSGLLQL PSNTSLVIDETLLEQGQLDTPGVHNVTALSNLITWQKVDYDFSYHQMEFPCNINVFITSEGRSLLPADCQIHLQP QLIPPNMEEYMNSLLSAVLPSVLNKFRIYLTLLRFLEYSISDEITKAVEDDFVEMRKNDPQSITADDLHQLLVVA RCLSLSAGQTTLSRERWLRAKQLESLRRTRLQQQKCVNGNEL

#### 1543/2682 FIGURE 1400

TGTTCTTGAGCCCAGCTTCTCTCTCTCCCACCCCAGCTTCCCGGCATTGGAAGAAGGGACCGTCCTCTTCCTT GTCTTGGCCACCCAAATCCTGGTATCGAAAGGGTTGAACGGACCGGAAGTGTGCAGCAGCGACGGGTCCCCAGCT TCCTGGCAGCCACCCAACGTTTACTTGGAGACCAGCATGGGAATCATTGTGCTGGAGCTGTACTGGAAGCATGCT CCAAAGACCTGTAAGAACTTTGCTGAGTTGGCTCGTCGAGGTTACTACAATGGCACAAAATTCCACAGAATTATC GAAGATGAACTTCATCCAGACTTGAAATTCACGGGGGCTGGAATTCTCGCAATGGCCAATGCGGGGCCAGATACC AATGGCAGCCAGTTCTTTGTGACCCTCGCCCCCACCCAGTGGCTTGACGGCAAACACACCATTTTTGGCCGAGTG  ${\tt AAGATCATTAAGGCATACCCTTCTGGG} \underline{{\tt TAG}} {\tt ACTTGCTACCCTCTTGAGCAGCTCTTCTGAGATGGCCCCAGTGAA}$ GCCTGGCATCTTGGGTGAGTTAGAGATGGAAGTACATTTTAATAGGATGCTTCTTTTCTCTTCCCCCAGTGCCTA CTTCTTGTGCATGTCTGCTCTGATATACGTCGAACAATGTAGCAGCCACTGTCATTTCTCAGTGGTTTTGCCTAA AACCAAGTAGTGTCTGTCAGCCCTCTTAACTCTGTGCACGCCCTATTTCAGTCTTTTACATTTGTTCTTCTAGGG AATGTATGCATCTCTATATATTTTCCCTCTCAAAACCAGAACATCAACAGTGCTGTTTCTGACACTTCAGACA TCCCACGCAAAGCCACATTGAATTTTTGCCAAATGAAAAACACATCCAACAATCAAGTTTCTAAGAAGGTGTCAA GTGGGGAATAATAATAATGTATAATAATCAAGAAATTAGTTTATTAAAAGGAAGCAGAAGCATTGACCATTTTTT  ${\tt CCCAGAGAAGAGGAGAAATCTGTAGTGAGCAAAGGACCATGAATCCTCCTTGAGAAGTAGTACTCTCAGAA}$  ${\tt AGGAGAAGCGCCACTCAAGTTCTTTTAACCCAAGACTTTAGAGAAATTAGGTCCAAGATTTTTATATGTTCAGTT}$ 

## 1544/2682 FIGURE 1401

 ${\tt MAAIPPDSWQPPNVYLETSMGIIVLELYWKHAPKTCKNFAELARRGYYNGTKFHRIIKDFMIQGGDPTGTGRGGASIYGKQFEDELHPDLKFTGAGILAMANAGPDTNGSQFFVTLAPTQWLDGKHTIFGRVCQGIGMVNRVGMVETNSQDRPVDDVKIIKAYPSG}$ 

#### 1545/2682 FIGURE 1402

 ${\tt ACCACGCGTCTCATCC} \underline{\textbf{ATG}} {\tt GCTTCCGCGGACTCGCGCGGGGGGCACCTTCCA}$ GCCCTACCTAGACACCTTGCGGCAGGAGCTGCAGCAGCAGCCCAACGCTGTTGTCAGTAGTGGTGGCGGTTCT TGCGGTGCTGACGCTAGTCTTCTGGAAGTTAATCCGGAGCAGAAGGAGCAGTCAGAGAGCTGTTCTTCTTGT TGGCCTTTGTGATTCCGGGAAAACGTTGCTCTTTGTCAGGTTGTTAACAGGCCTTTATAGAGACACTCAGACGTC CCATGAGAGTTTGAGGCTTCAGTTCTTAGAGCGGTTTAAGTCTTCAGCCGGGGCTATTGTGTTGTTGTGGATAG TGCAGCATTCCAGCGAGAGGTGAAAGATGTGGCTGAGTTTCTGTATCAAGTCCTCATTGACAGTATGGGTCTGAA GAATACACCATCATTCTTAATAGCCTGCAATAAGCAAGATATTGCAATGGCAAAATCAGCAAAGTTAATTCAACA GCAGCTGGAGAAAGAACTCAACACCTTACGAGTTACCCGTTCTGCTGCCCCCAGCACACTGTACAGTTCCAGCAC TGCCCCTGCTCAGCTGGGGAAGAAGGCAAAGAGTTTGAATTCTCACAGTTGCCCCTCAAAGTGGAGTTCCTGGA  ${\tt TGCC} \underline{{\tt TGA}} {\tt GAGGCAGCTCTAAAGCACAAGACCTGGATGTGTGACACACAGTTTTGGAAAAAGGTCTGTGGTAGTCT}$ GGAGTTGATGAGGAAGGGGTACAAGATGTGGTTAGAAACATTTCTTTGTTCTGGAAACAAAGTACTGTTGAAACC TCTGATGCCTGTATCTTCCCTTTGTTAAGGTGTAACTTGATGTAGGGTCAAGGTTTTTGTGACAACAGGCAGACT CCACACAGAGAGATATGATGAGAATATGGCCATCACCTGAAAAGTTTTCTTATCTTCTGTGCTTTTGGTCCCTG GAAACAAATCCGCCTATGTATGAAGCTAGTTGATTTCCAGTTGCACTATTTCCAGTTGCCTCTGAAGTTCACAGG CAATACATTGTCTAGTCCTTTGCGAATTTCTCTGATTTGTGGGCACAGTTATGAAGTTTCCCCACATGTGAAGAC AGGTACAAAATAGCAGAGCCAAGCAGACAGTGGGTCTATTCTTCATTAGCTCAGTGACTTGTCCACACTCGTCTT AGCACTTACGTTTCAAAAGCTTGTCACAAACCCTTGGAGTCATTCCCAGATAATAGAACTGGAAATGATAAATCC CCTAATGCCAAGGGTCTAGTGTTCTTAGTGGTTATACTGGGAAGTGTGTGGAGATTTAGGTGCTGCTGCTG CTCTGGATGGCTGAAGGCTCCTGGGCCATCTTCATGTGCTGCTTGAAGAGCTCCTATTTTGTACTCCTGGCTAGA ATGCTGTGGAACAAATACAAAGTGAAAAAAGTTCTCTGTAGATTTCTGAAGTGCATATTCATTGATGCCAAGAAA AAAAAAAGTTGCCTTTTTG

## 1546/2682 FIGURE 1403

MASADSRRVADGGGAGGTFQPYLDTLRQELQQTDPTLLSVVVAVLAVLLTLVFWKLIRSRRSSQRAVLLVGLCDS GKTLLFVRLLTGLYRDTQTSITDSCAVYRVNNNRGNSLTLIDLPGHESLRLQFLERFKSSAGAIVFVVDSAAFQR EVKDVAEFLYQVLIDSMGLKNTPSFLIACNKQDIAMAKSAKLIQQQLEKELNTLRVTRSAAPSTLYSSSTAPAQL GKKGKEFEFSQLPLKVEFLECSAKGGRGDVGSADIQDLEKWLAKIA

## 1547/2682 FIGURE 1404

CAGCTTCCCACCCTGGGCTTTCCGAGGTGCTTTCGCCGCTGTCCCCACCACTGCAGCC ATG ATCTCCTTAACGGACACGCAGAAAATTGGAATGGGATTAACAGGATTTGGAGTGTTTTTCCTGTTCTTTGGAATGATTCTCTTTTTTGA CAGATTCTTCTTCCAAAAACATAAAATGAAAGCTACAGGTTTTTTTCTGGGTGGTGTATTTGTAGTCCTTATTGG TTGGCCTTTGATAGGCATGATCTTCGAAATTTATGGATTTTTTCTCTTGTTCAGGGGCTTCTTTCCTGTCGTTGT TGGCTTTATTAGAAGAGTGCCAGTCCTTGGATCCCTCCTAAATTTACCTGGAATTAGATCATTTGTAGATAAAGT  $\tt TGGAGAAAGCAACAATATGGTA{\color{red}{\textbf{TAA}}} CAACAAGTGAATTTGAAGACTCATTTAAAATATTGTGTTATTATAAAGT$ CATTTGAAGAATATTCAGCACAAAATTAAATTACATGAAATAGCTTGTAATGTTCTTTACAGGAGTTTAAAACGT ATAGCCTACAAAGTACCAGCAGCAAATTAGCAAAGAAGCAGTGAAAACAGGCTTCTACTCAAGTGAACTAAGAAG AAGTCAGCAAGCAAACTGAGAGAGGTGAAATCCATGTTAATGATGCTTAAGAAACTCTTGAAGGCTATTTGTGTT GCTCAGGAGCATCCATAGGCATTTGCTTTTTAGAAGTGTCCACTGCAATGGCAAAAATATTTCCAGTTGCACTGT ATCTCTGGAAGTGATGCATGAATTCGATTGGATTGTGTCATTTTAAAGTATTAAAACCAAGGAAACCCCAATTTT GATGTATGGATTACTTTTTTTTGTAAACATGGTTAAAATAAAACTTTTGTGGTTCTTCTGAATCTTAATATTTCA AAGCCAGGTGAAAATCTGAACTAGATATTCTTTGTTGGAATATGCAAAGGTCATTCTTTACTAACTTTTAGTTAC TAAATTATAGCTAAGTTTTGTCAGCAGCATACTCCGGAAAGTCTCATACTTCTTGGGAGTCTGCCCTCCTAAGTA ATAGCTTGTCTCATTGAATAGTATTATTGAAGATACTAAATGATGCAAACCAAATGGATTTTTTCCATGTCATGA TGTAATTTTTCTTTCTTTCTTTTTTTTTAAATTTTAGCAGTGGCTTATTATTTGTTTTTCATAAAATTAAAATA ACTTTTGATAATGTTTACTTTAAGACATGTAACATGTTAAAAGGTTAAACTTATGGCTGTTTTTAAAGGGCTATT CATTTAATCTGAGTTTTCCCTTATTTTCAGCTTTTTCCTAGCATATAATAGTCATTAAGCATGACATATCCTTCA TATGATCACTCATCTTGAGTTAATTAGAAAATACCTGAGTTCACGTGCTAAAGTCATTTCACTGTAATAAACTGA CTATGGTTTCTTAAGAACATGACACTAAAAAAAAAAAAGTGGTTTTTTTCCACCGTTGCTGATTATTAGACAGTAGG AAATAGCTGTTTTCTTTAGTTTTACAAGATGTGACAGCTTTAGTGGTAGATGTAGGGAAACATTTCAACAGCCAT AGTACTATTTGTTTTACCACTGATTGCACTATTTTGTTTTTTTAACAGTTGCAAAGCTTTTTAATGCATAAAAGT ATAATTGAAATCTGTGGTATTTATTTACAAACATGTCTACAAAAATAGATTACAGCTTATTTTATTTTTAGTTAA ATCTCTTAATACACAGAGAACTCCCAATCTTGCTCATCTAAATAAGGAAAGACTTGGTGTATAGTGTGATGGTTT AGTCTTAAGGATTAAGACATTTTTGGTACTTGCATTTGACTTACGATGTATCTGTGAAAATGGGATGATATTGAC AAATGGAGACTCCTACCTCAATAGTTAATGGAATAATAAGAGGCTACTGTTGTGTCTAATGTTCTTCAAAAAAGT AATATCCTCACTTGGAGAGTGTCAAATACATACTTTGAGGATTGACTTTATATAAGGTGCCCTGTAGAACTCTGT TACACATATTTTTGACCCATATTATTTACAATGTCTTGATAATTCTACCTTTTTAGAGCAAGAATAGTATCTGCT AATGTAAGGGACATCTGTATTTAACTCCTTTGTAGACATGAATTTCTATCAAAATGTTCTTTGCACTGTAACAGA GATTCCTTTTTCAATAATCTTAATTCAAAAGCATTATTAGACTTGAAAGGGTTTGATAATCTCCCAGTCCTTAG TAAAGATTGAGAGAGGCTGGAGCAGTTTTCAGTTTTAAATGAGTCTGCAGTTAATATCAAATGTGAGTTTGGGAC TGCCTGGCAACATTTATATTTCTTATTCAGAACCCTTGATGAGACTATTTTTAAACATACTAGTCTGCTGATAGA ATGGAGGAAAAGGTCTAATACTACATAGCCTTAAGTGTTTCTGTCATTGTTCAAGTGTATTTTCTGTAACAGAAA CATATTTGGAATGTTTTTCTTTTCCCCTTATAAATTGTAATTCCTGAAATACTGCTGCTTTAAAAAGTCCCACTG TCAGATTATATTATCTAACAATTGAATATTGTAAATATACTTGTCTTACCTCTCAATAAAAGGGTACTTTCTAT СААААААААААААААААА

# 1548/2682 FIGURE 1405

 ${\tt MISLTDTQKIGMGLTGFGVFFLFFGMILFFDKALLAIGNVLFVAGLAFVIGLERTFRFFFQKHKMKATGFFLGGVFVVLIGWPLIGMIFEIYGFFLLFRGFFPVVVGFIRRVPVLGSLLNLPGIRSFVDKVGESNNMV}$ 

## 1549/2682 FIGURE 1406

AAAAAACCAGGAAGTGAAGTCCCCGAGCACGTTAGAAAGCCTGACATGGCCTGACTCGGGACAGCTCAGAGCAGG GCAGAACTGGGGACACTCTGGGCCGGCCTTCTGCCTGCATGGACGCTCTGAAGCCACCCTGTCTCTGGAGGAACC ACGAGCGAGGGAAGAAGAACTCAGAGCCGGGAAGCCCCCATTCACTAGAAG  $\texttt{CACTGAGAGATGCGGCCCCTCGCAGGGTCTGAATTTCCTGCTGCTGTTCACAAAG} \underline{\textbf{ATG}} \texttt{CTTTTTATCTTTAACT}$ TTTTGTTTTCCCCACTTCCGACCCCGGCGTTGATCTGCATCCTGACATTTGGAGCTGCCATCTTCTTGTGGCTGA AAAGAGGACTCGCTGTGTCTGACAATGGGCCCTGCTTGGGATATAGAAAACCAAACCAGCCCTACAGATGGCTAT ACCAGTTTGTCGGCATCTTTGCTCAGAATAGGCCAGAGTGGATCATCTCCGAATTGGCTTGTTACACGTACTCTA TGGTAGCTGTACCTCTGTATGACACCTTGGGACCAGAAGCCATCGTACATATTGTCAACAAGGCTGATATCGCCA TGGTGATCTGTGACACCCCAAAAGGCATTGGTGCTGATAGGGAATGTAGAGAAAGGCTTCACCCCGAGCCTGA AGGTGATCATCCTTATGGACCCCTTTGATGATGACCTGAAGCAAAGAGGGGGAGAAGAGTGGAATTGAGATCTTAT CCCTATATGATGCTGAGAACCTAGGCAAAGAGCACTTCAGAAAACCTGTGCCTCCTAGCCCAGAAGACCTGAGCG TCATCTGCTTCACCAGTGGGACCACAGGTGACCCCAAAGGAGCCATGATAACCCATCAAAATATTGTTTCAAATG TGGCTCATATGTTTGAGAGGATTGTACAGGCTGTTGTGTACAGCTGTGGAGCCAGAGTTGGATTCTTCCAAGGGG ATATTCGGTTGCTGGCTGACGACATGAAGACTTTGAAGCCCCACATTGTTTCCCGCGGTGCCTCGACTCCTTAACA AATTCAAAGAGCTTCAAAAGGGTATCATCAGGCATGATAGTTTCTGGGACAAGCTCATCTTTGCAAAGATCCAGG ACAGCCTGGGCGGAAGGGTTCGTGTAATTGTCACTGGAGCTGCCCCCATGTCCACTTCAGTCATGACATTCTTCC GGGCAGCAATGGGATGTCAGGTGTATGAAGCTTATGGTCAAACAGAATGCACAGGTGGCTGTACATTTACATTAC CTGGGGACTGGACATCAGGTCACGTTGGGGTGCCCCTGGCTTGCAATTACGTGAAGCTGGAAGATGTGGCTGACA TGAACTACTTTACAGTGAATAATGAAGGAGAGGTCTGCATCAAGGGTACAAACGTGTTCAAAGGATACCTGAAGG ATGGAACTCTGAAGATCATCGACCGTAAAAAGAACATTTTCAAGCTGGCCCAAGGAGAATACATTGCACCAGAGA AGATAGAAAATATCTACAACAGGAGTCAACCAGTGTTACAAATTTTTGTACACGGGGAGAGCTTACGGTCATCCT TAGTAGGAGTGGTGGTTCCTGACACAGATGTACTTCCCTCATTTGCAGCCAAGCTTGGGGTGAAGGGCTCCTTTG TTAAAACTTTTGAACAGGTCAAAGCCATTTTTCTTCATCCAGAGCCATTTTCCATTGAAAATGGGCTCTTGACAC CAACATTGAAAGCAAAGCGAGGAGGAGCTTTCCAAATACTTTCGGACCCAAATTGACAGCCTGTATGAGCACATCC  $\mathtt{AGGAT}$   $\mathtt{TAG}$   $\mathtt{GATAAGGTACTTAAGTACCTGCCGGCCCACTGTGCACTGCTTGTGAGAAAATGGATTAAAAACTATT$  $\tt CTTACATTTGTTTTGCCTTTCCTCCTATTTTTTTTAACCTGTTAAACTCTAAAGCCATAGCTTTTGTTTTATAT$ AAGGCTTCAGGGCTACTTTTATCAACATGCCTGTCTTCAAGATCCCAGTTTATGTTCTGTGTCCTTCATGAT TTCCAACCTTAATACTATTAGTAACCACAAGTTCAAGGGTCAAAGGGACCCTCTGTGCCTTCTTCTTTGTTTTGT GATAAACATAACTTGCCAACAGTCTCTATGCTTATTTACATCTTCTACTGTCAAACTAAGAGATTTTTAAATTCT GAAAAACTGCTTACAATTCATGTTTTCTAGCCACTCCACAAACCACTAAAATTTTAGTTTTAGCCTATCACTCAT GTCAATCATATCTATGAGACAAATGTCTCCGATGCTCTTCTGCGTAATTAAATTGTGTACTGAAGGGAAAAGTTT GATCATACCAAACATTTCCTAAACTCTCTAGTTAGATATCTGACTTGGGAGTATAAAAATTGGTCTATGACATAT TGTCCAAAAGGAATGCTGTTCTTAAAGCATTATTTACAGAAGGAACTGGGGAGTAAATCTGTCCCTACAGTTTGC TGAAGGAACCAACTGATCTCCCCCCCCCTTGGATTAGAGTTCCTGCTCTACCCTACCCACAGATAACACATGCTG 

# 1550/2682 FIGURE 1407

MLFIFNFLFSPLPTPALICILTFGAAIFLWLITRPQPVLPLLDLNNQSVGIEGGARKGVSQKNNDLTSCCFSDAK
TMYEVFQRGLAVSDNGPCLGYRKPNQPYRWLSYKQVSDRAEYLGSCLLHKGYKSSPDQFVGIFAQNRPEWIISEL
ACYTYSMVAVPLYDTLGPEAIVHIVNKADIAMVICDTPQKALVLIGNVEKGFTPSLKVIILMDFFDDDLKQRGEK
SGIEILSLYDAENLGKEHFRKPVPPSPEDLSVICFTSGTTGDPKGAMITHQNIVSNAAAFLKCVEHAYEPTPDDV
AISYLPLAHMFERIVQAVVYSCGARVGFFQGDIRLLADDMKTLKPTLFPAVPRLLNRIYDKVQNEAKTPLKKFLL
KLAVSSKFKELQKGIIRHDSFWDKLIFAKIQDSLGGRVRVIVTGAAPMSTSVMTFFRAAMGCQVYEAYGQTECTG
GCTFTLPGDWTSGHVGVPLACNYVKLEDVADMNYFTVNNEGEVCIKGTNVFKGYLKDPEKTQEALDSDGWLHTGD
IGRWLPNGTLKIIDRKKNIFKLAQGEYIAPEKIENIYNRSQPVLQIFVHGESLRSSLVGVVVPDTDVLPSFAAKL
GVKGSFEELCQNQVVREAILEDLQKIGKESGLKTFEQVKAIFLHPEPFSIENGLLTPTLKAKRGELSKYFRTQID
SLYEHIQD

## 1551/2682 FIGURE 1408

GCGGCAATC<u>ATG</u>GCGCCACCTGTGAGATACTGCATCCCCGGCGAACGTCTGTGTAACTTGGAGGAGGGCAGCCCG GGCAGCGGCACCTACACCCGCCACGGCTACATCTTTTCGTCGCTTGCCGGCTGTCTGATGAAGAGCAGCGAGAAT GGCGCGCTTCCAGTGGTGTCTGTAGTGAGAGAAACAGAGTCCCAGTTACTGCCAGATGTGGGAGCTATTGTAACC TGTAAGGTCTCTAGCATCAATTCACGCTTTGCCAAAGTACACATCCTGTATGTGGGGTCCATGCCTCTTAAGAAC TCTTTTCGAGGAACTATCCGCAAGGAAGATGTCCGAGCAACTGAAAAAGACAAGGTTGAAATTTATAAGAGTTTC CGCCCAGGTGACATTGTCTTGGCCAAAGTGATCTCCTTAGGTGATGCACAGTCCAACTACCTGCTAACCACCGCC GAGAACGAGCTGGGAGTGGTAGCCCACAGTGAGTCAGGTATCCAGATGGTTCCCATCAGCTGGTGTGAGATG CAGTGCCCTAAGACCCACACTAAAGAATTCCGGAAAGTAGCCCGAGTACAACCCGAATTCTTGCAGACC<u>TAA</u>GAA GCCACTTTTTACCCTATGGAAGGGGGTAAGCTGTTCCTGAGTATAACACCAAGATGCTGCTGTCTTTATTCAAAC ACCTGGCGTCGGCCAACAGCCACTTCCAGAAAAATCTTCCAGTTTACGCTGTAGATGGAACATGTTTCTGTGAAC GAAATAGCCTATCCCTCCTGACAGTCCTTATAAATACATATTTTTTTGCTATGATAAAACTTTTTTTACTAAAAGGA TGTTATAGAGTCTGTTGTCTTAAGCAGAGAAAGACATCTAAATGGTGTCAGGACATTTCAGTACTTCTGCTTATT GAGTACTTACTGTGCTAGGCACTGAGTCAGGTGCTTTACATACGTCCCCTTCATTTAGGTACATTGTGATTTAAT CTTTGGGAAGGCCGAGTTGGTTTTGAACTCCTGGCCTCCCAAGGTGCTGATAGTACAGGCATGAACCACTGTGCT TGGCCTTTTAAAATTTTGTAGAGATGCAGTCTTACTATGTTGCCCAGGCTGTCTCAAACTCCTGGCCTCAAGTGG TCCTCCTGCCTTGGCCTCCCAAAATGTTGCAATTACAGGCATGAGCACTGTGCTTGGCAAGCTAAGGAGGATTTT CACTAGCAGTTTCATTTGACAATACCAATCTAGAGGTGAGCTTCTCAATCTTTAATGTGTATCCAAATCACCTGG GGAATAGATGCCGATTCTGAAACAGGTCTGGAGTGAGACCTGAGGTTCTGCATGTATAACAAGCTCCCAGGGGGT CCAGCTGTCA

# 1552/2682 FIGURE 1409

MAPPVRYCIPGERLCNLEEGSPGSGTYTRHGYIFSSLAGCLMKSSENGALPVVSVVRETESQLLPDVGAIVTCKV SSINSRFAKVHILYVGSMPLKNSFRGTIRKEDVRATEKDKVEIYKSFRPGDIVLAKVISLGDAQSNYLLTTAENE LGVVVAHSESGIQMVPISWCEMQCPKTHTKEFRKVARVQPEFLQT

## 1553/2682 FIGURE 1410

GCACGAGCCCCGGGCTGCCGGCGCGCGCGCGCACGTCCACAGGCTGGGTCGCGAGGTGGCGATCGCTGAGA GGCAGGAGGCCGAGGCCGGGCCTGGGAGGCGGCCCGGAGGTGGGGCCGCCGCTGGGGCCCGCCACGGGCTTCA TCTGAGGGCGCACGGCCCGACCGAGCGTGCGGACTGGCCTCCCAAGCGTGGGGCGACAAGCTGCCGGAGCTGC  $\mathtt{A} \underline{\mathtt{ATG}}$ GGCCGCGGCTGGGGATTCTTGTTTGGCCTCCTGGGCGCCGTGTGGCTGCTCAGCTCGGGCCACGGAGAGGA GCAGCCCCGGAGACAGCGCCACAGAGGTGCTTCTGCCAGGTTAGTGGTTACTTGGATGATTGTACCTGTGATGT TGAAACCATTGATAGATTTAATAACTACAGGCTTTTCCCAAGACTACAAAAACTTCTTGAAAGTGACTACTTTAG GTATTACAAGGTAAACCTGAAGAGGCCGTGTCCTTTCTGGAATGACATCAGCCAGTGTGGAAGAAGGGACTGTGC TGTCAAACCATGTCAATCTGATGAAGTTCCTGATGGAATTAAATCTGCGAGCTACAAGTATTCTGAAGAAGCCAA GGCTGTTCTTCAGTGGACCAAGCATGATGATTCTTCAGATAACTTCTGTGAAGCTGATGACATTCAGTCCCCTGA AGCTGAATATGTAGATTTGCTTCTTAATCCTGAGCGCTACACTGGTTACAAGGGACCAGATGCTTGGAAAATATG GAATGTCATCTACGAAGAAAACTGTTTTAAGCCACAGACAATTAAAAGACCTTTAAATCCTTTGGCTTCTGGTCA AGGGACAAGTGAAGAGAACACTTTTTACAGTTGGCTAGAAGGTCTCTGTGTAGAAAAAAGAGCATTCTACAGACT TATATCTGGCCTACATGCAAGCATTAATGTGCATTTGAGTGCAAGATATCTTTTACAAGAGACCTGGTTAGAAAA GAAATGGGGACACAACATTACAGAATTTCAACAGCGATTTGATGGAATTTTGACTGAAGGAGAAGGTCCAAGAAG GCTTAAGAACTTGTATTTCTCTACTTAATAGAACTAAGGGCTTTATCCAAAGTGTTACCATTCTTCGAGCGCCC AGATTTTCAACTCTTTACTGGAAATAAAATTCAGGATGAGGAAAACAAAATGTTACTTCTGGAAATACTTCATGA AATCAAGTCATTTCCTTTGCATTTTGATGAGAATTCATTTTTTGCTGGGGATAAAAAAAGAAGCACAAAACTAAA GGGAAAGCTTCAGACTCAGGGTTTGGGCACTGCTCTGAAGATCTTATTTTCTGAGAAATTGATAGCAAATATGCC AGAAAGTGGACCTAGTTATGAATTCCATCTAACCAGACAAGAAATAGTATCATTATTCAACGCATTTGGAAGAAT  $\tt TTCTACAAGTGTGAAAGAATTAGAAAACTTCAGGAACTTGTTACAGAATATTCAT \underline{TAA} \tt AGAAAACAAGCTGATAT$ CAAACATTTTATATAAAGTTGCTTTTGTAAAGGAGAATTATATTGTTTTAAGTAAACACATTTTTAAAAAATTGTG TTAAGTCTATGTATAATACTACTGTGAGTAAAAGTAATACTTTAATAATGTGGTACAAATTTTAAAGTTTAATAT TGAATAAAAGGAGGATTATCAAATTCATATATGATAAAAGTGAATGTTCTAAGTCTCTCAAACTAGCGTTTTATG TAATAATATGTAATATAAATAAAACTATGGTAAATGTGACAAGCATTTAATAGGAAAATGCTAAGGAGGCCTCAT AAATGACCCATAATTACCAACGTAGAATTTTTCAGTACATTTAGGGTTGCTGGATTTAGCAAATAAAAATAAAGA TTGCCCAGTTAGATTTGAATTTCAGATAAACAATTAGTTTTTTAATATTTTACATGGAATATTTGGAAAATACTT ATACTAAAAAATTATTTGTTTGAAATTCACATTTAACTGGGAGTCTTGTATTTTATCTGGCAATCCTAAAATACA TTGGTATGAAACAAATCACTTTTAGAAGTATATTGCTATTTTGATTGGGTTGTTTTTGTGTGTAGAAACGTACAA TTTCACTAATACTAAATAAAATTTGGGGAACACTTTTTATTTTTATATAATTTCCAATTTACAGAAAAGTTTCAA AAATAGTACAAAGAGCTCTCTTACCCAGATTCACTAATTGTTCATACGTGCTTTATCTTTCATGCTTTCTCTGTA CACACACACACACACAAATTTTTCCTCAATCATTTGAAAGTCAGTTATAGGCATCATGCCCCTTAAACCCTAA TATAATACTGTAAGCCTTAGAATAAATAATACTTTCAAGTTCCAATCTAAAGTTCTTTTTGAGTTTTGTTGCCCG TGTGTTGCCCAAGCTGGAACTTGAACGACTGGGCTGAAGTGATCTTCCCACCTCAGCCTCCCAAGTAGCTGGGAA TACAGGTGTCTGCCACCATACCCAGTTTCATTTTTGTTTTTTATACCCGAAGTTCATTTCCTTTGTCTCCCTAAA ACTGAACTGTAATTTTGGGAGGTTTTCATTAGTGGAAGCTCTTCATTTATAAAGCTATTTGAAGGGGTTTAGGAA TTTATATCACATGGTAATTGTAGAGAAAAGAAGCTATATACCTCAAAATCGTGCCCTCTTTACATATGTCTTAT TACACTGCTGTATACTTCTTCTTCTGTGTCCCTAAGGCCTGGTACAGTGCCAAGCACATACTTGGTATCCAATAA ATATTTGTTGGATGAAAAAAAAAAAAAAAAAAAAAA

# 1554/2682 FIGURE 1411

MGRGWGFLFGLLGAVWLLSSGHGEEQPPETAAQRCFCQVSGYLDDCTCDVETIDRFNNYRLFPRLQKLLESDYFR
YYKVNLKRPCPFWNDISQCGRRDCAVKPCQSDEVPDGIKSASYKYSEEANNLIEECEQAERLGAVDESLSEETQK
AVLQWTKHDDSSDNFCEADDIQSPEAEYVDLLLNPERYTGYKGPDAWKIWNVIYEENCFKPQTIKRPLNPLASGQ
GTSEENTFYSWLEGLCVEKRAFYRLISGLHASINVHLSARYLLQETWLEKKWGHNITEFQQRFDGILTEGEGPRR
LKNLYFLYLIELRALSKVLPFFERPDFQLFTGNKIQDEENKMLLLEILHEIKSFPLHFDENSFFAGDKKEAHKLK
EDFRLHFRNISRIMDCVGCFKCRLWGKLQTQGLGTALKILFSEKLIANMPESGPSYEFHLTRQEIVSLFNAFGRI
STSVKELENFRNLLQNIH

## 1555/2682 FIGURE 1412

CTGTTCCAAACCACGTGGACGCGTCTGGGGCTGCTGGAGGCAGCCGAGCCGCCGCCGTCGGTGTCGCCGCCACCA CCACCATCGGAGTCACGAGTCCCGCGTCTGTCCGAAGTCGCCGCTCTCGGGCTGCTCACGTCTCTCGGAGAGCG CGCACATGCCGACTCAGGCGTACTCCCTCAGCTACGCAGGGTGCAACTTCTTGCGCCAACGTCTGGTCCTGTCTA CCCTGAGCGGGCGCCCCGTCAAAATCCGAAAGATTCGGGCCAGAGACGACAACCCGGGCCTCCGAGATTTTGAAG CCAGCTTCATAAGGCTATTGGACAAAATAACGAATGGTTCTCGAATTGAAATAAACCAAACAGGAACAACCTTAT ATTATCAGCCTGGCCTCCTGTATGGTGGATCTGTGGAACATGACTGTAGCGTCCTTCGTGGCATTGGGTATTACC TGGAGAGTCTTCTTTGCTTGGCTCCATTTATGAAGCACCCGTTAAAAATAGTTCTACGAGGAGTGACCAATGATC AGGTTGACCCTTCAGTTGATGTTCTTAAGGCAACAGCACTCCCTTTGTTGAAACAATTTGGGATTGATGGTGAAT GGAAGGTCTTGAAGCCCATTCAACTCACAGATCCAGGAAAAATCAAACGTATTAGAGGAATGGCGTACTCTGTAC GTGTGTCACCTCAGATGGCGAACCGGATTGTGGATTCTGCGAGGAGCATCCTCAACAAGTTCATACCTGATATCT ATATTTACACAGATCACATGAAAGGAGTCAACTCTGGGAAGTCTCCGGGCTTTGGGTTGTCACTGGTTGCTGAGA ACCTTGGCAGGAACTGTGCCCGGCTGCTGCAGGAGAAATCTACAGGGGTGGATGCGTAGACTCGACCAAA CGATAGAATTTTTGCGGCATTTGAAGAGCTTTTTCCAGATTATGTTTAAAATTGAAACCAAGCCATGTGGTGAAG  ${\tt AACTCAAGGGTGGGGATAAAGTGCTGATGACCTGTGTTGGCATTGGTTTCTCCAACCTTAGCAAGACCCTCAAG\underline{{\bf r}}$ **CA**TAACCATCACAAGATAAGGCCCCAGTGCCTACAGACAAAGCAGAAGCTGCCACGGACACCAATGGGACCAAGT CCAAATGGATTAATCCAGGACAGAATAGCCACTTGCTTAATTTTCTGTGAAGAAATATCAATATACAAATAAAAG ACATCCCTGTAGCATATGGTTTCCAGCTGTTTCTCCAGTGGCATTGCCCAGGAGGGGGCCCAGTCACCAT GAGAGCTCCCTTGCCTTACCTGGAGGAAGAATGTGCCTTCAGGCCACAGTCGTGCTGCTAGAACAGTCTCATAGC TGCAGTTCAGCTGTGCTTCCTCAGCCTACTATCATAGGCTTCCTCAGCCCTCTGTCATATGGCTGTTTTGCAAAC CTGTGGAGTCTGTTACTGTTCTTCTGCAAGGACTCACCTCCTTGAGCCTTGGTTTTTGTTGTAGGGATTAAATG AGATAATATGAGTGGCAGCTCTTCATGAGTCCTGCAGTGCTAAGCAAATGTCAGAAATTGGTGTATTAGACTATT TATCTTTGATCTTCTGAATGGATTGCTGTCATGGACACGGACACGGATCTTCATCTGGTTCATTGTATTTATATG TGAGGGATGGATGGCTGCGGGGCTCCAAGTAAGTTATTGGGATGTTTTTTATATTCCAGGTGTGCTGTACATTCT TATTTTATTTTCACAACAGCTCTGTGATGTAAATGCTATCTCCATGAGAAAATTCATAAAGGGTGTTTTGTTCCT TTGAAATGTATAATGTAAAGACATTAAATCTCCTCATTT

# 1556/2682 FIGURE 1413

MATQAYSLSYAGCNFLRQRLVLSTLSGRPVKIRKIRARDDNPGLRDFEASFIRLLDKITNGSRIEINQTGTTLYY QPGLLYGGSVEHDCSVLRGIGYYLESLLCLAPFMKHPLKIVLRGVTNDQVDPSVDVLKATALPLLKQFGIDGESF ELNIVRRGMPPGGGGEVVFSCPVRKVLKPIQLTDPGKIKRIRGMAYSVRVSPQMANRIVDSARSILNKFIPDIYI YTDHMKGVNSGKSPGFGLSLVAETTSGTFLSAELASNPQGQGAAVLPEDLGRNCARLLLEEIYRGGCVDSTNQSL ALLLMTLGQQDVSKVLLGPLSPYTIEFLRHLKSFFQIMFKIETKPCGEELKGGDKVLMTCVGIGFSNLSKTLK

## 1557/2682 FIGURE 1414

 $\tt CTACAGATACTGCCGTGTGAGAGTACCTGAGGGGGCTCCTGAAAGACCTACTGCCAGGACCAGTGACCCTGGTG\underline{AT}$ **G**GAACGCTCGGAGGAGCTCAACAAGGACCTAAACCCTTTTACGCCTCTTGTAGGCATTCGGATTCCTGATCATGC TTTTATGCAAGACTTGGCTCAGATGTTTGAGGGTCCGCTTGCTCTCACTAGTGCCAACCTCAGCTCCCAGGCCAG TTCTCTGAATGTCGAGGAGTTCCAGGATCTCTGGCCTCAGTTGTCCTTGGTTATTGATGGGGGACAAATTGGGGA TGGCCAGAGCCCCGAGTGTCGCCTTGGCTCAACTGTGGTTGATTTGTCTGTGCCCGGAAAGTTTGGCATCATTCG TCCAGGCTGTGCCCTGGAAAGTACTACAGCCATCCTCCAACAGAAGTACGGACTGCTCCCCTCACATGCGTCCTA AAGGCCTCATTTGCAGAGGCCACCGGAGCTAGGGCACTAGCCTGACTTTTAAGGCAGTGTGTCTTTCTGAGCACT TCAGCCAAAAGCTGAATGGAAAAGTTAAGAACATTCCTAGGTGGCCTTATTCTAATAAGTTTCTTGTCTGTTTT TTTAAGGTTCAAACCAGCCAGAAGTGCTGGTGCTGTTTAAAAAGTCTCAGGTGGCTGCGTGGGGGCTCATGCC TGTAATCCCAACATTCTGGGAGGCCCAGGCGGAGAACTGCTTGAGCCCAGGAGTTCAGAATCAGCCTGGGCAAC ATAGCAATACTCCGTCTCATAAAAATTAATAAATAAAAGTCTCAGGTGACCAAAGGCTCCTGAAGCTAGAACCA GGTTTGGATAAAGATTGAAGAGCCACAGGCCACTCTTCCCTCTGAGCCATTGGGCCTAGTGGTGTCATGTATTGT AATTGCTCGCAGGGAGAGCAGTCTTTTTGGTGTAATAGTGGGATGTCTGCTTAGTTGGCAGGGGTTCAGTCCAAA ATTATAGTTAATTATACCCATAACACCTTTATTTAAATCCAGTGTTCTCCGCAGCCTTTTGTCTATTTATATGTG TACCAAGTGTTAAACATAATTATTATTGGGCATTTGAACTTTGTTTTTCTTTAAAGAAATGCTGCTATTAAACAT 

# 1558/2682 FIGURE 1415

MERSEELNKDLNPFTPLVGIRIPDHAFMQDLAQMFEGPLALTSANLSSQASSLNVEEFQDLWPQLSLVIDGGQIG DGQSPECRLGSTVVDLSVPGKFGIIRPGCALESTTAILQQKYGLLPSHASYL

## 1559/2682 FIGURE 1416

GCCCCAGGAGAATCCTCATTGACACTGGAGAACCAGCAATTCCAGAATACATCAGCTGTTTAAAGCAGGCTCTAA CTGAATTTAACACAGCAATCCAGGAAATTGTAGTGACTCACTGGCACCGAGATCATTCTGGAGGCATAGGAGATA TTTGTAAAAGCATCAATAATGACACTACCTATTGCATTAAAAAACTCCCACGGAATCCTCAGAGAGAAAAATTA TAGGAAATGGAGAGCAACAATATGTTTATCTGAAAGATGGAGATGTGATTAAGACTGAGGGAGCCACTCTAAGAG TTCTATATACCCCTGGCCACACTGATGATCACATGGCTCTACTCTTAGAAGAGGAAAATGCTATCTTTTCTGGAG ATTGCATCCTAGGGGAAGGAACAACGGTATTTGAAGACCTCTATGATTATATGAACTCTTTAAAAGAGTTATTGA AAATCAAAGCTGATATTATATATCCAGGACATGGCCCAGTAATTCATAATGCTGAAGCTAAAATTCAACAATACA TTTCTCACAGAAATATTCGAGAGCAGCAAATTCTTACATTATTTCGTGAGAAACTTTGAGAAATCATTTACAGTAA TGGAGCTTGTAAAAATTATTTACAAGAATACTCCTGAGAATTTACATGAAATGGCTAAACATAATCTCTTACTTC  ${\tt ATTTGAAAAACTAGAAAAAGAAGGAAAAATATTTAGCAACAGATCCTGACAAGAAATGGAAAGCTCATCTT} \underline{{\tt T}}$ **AC**TTTCAGATTAAAGAAAGCTTTGTTTTATTTTGCTTTGAGAGAATGGTATGTTTTCTTAACTATAGGTTATTTT ATAGAGAATATAAAAGTATAAAACATTAAAAATAACCCTAGATATACTTTAAAATAATGTTATATTTATGCTAAA ATATGTAAATTACACTATACAACCATATGATAGGTTATTTCTCTAACCTTGTCTTCTAACGTTTTACCAAAAATT TTAAAGTTGATATTATTTTTGGCCGTTAGTTATCTATTACTAGTGATCAGTTATACTGTTTTCTATAGCTACTTT ATTTAACAGCACAGATTTCTATGCACCTTTACTCTTTCCTCAACCCTTGTCTCTATCTGTACATAATTGCTTTGT CTTGATGTTTCTATCAACTATATCATGACTATCTATTGGTTCCATAACTCTGTATCATGTGTATTTTCTTATTCT GGTATACCACAAATGATTCATGCAAATGAATTTTTGGTGATTGAAAAATATTAAATTCCCAATTTAAAGTATTAT **ATGATA** 

# 1560/2682 FIGURE 1417

MAAVLQRVERLSNRVVRVLGCNPGPMTLQGTNTYLVGTGPRRILIDTGEPAIPEYISCLKQALTEFNTAIQEIVV THWHRDHSGGIGDICKSINNDTTYCIKKLPRNPQREEIIGNGEQQYVYLKDGDVIKTEGATLRVLYTPGHTDDHM ALLLEEENAIFSGDCILGEGTTVFEDLYDYMNSLKELLKIKADIIYPGHGPVIHNAEAKIQQYISHRNIREQQIL TLFRENFEKSFTVMELVKIIYKNTPENLHEMAKHNLLLHLKKLEKEGKIFSNTDPDKKWKAHL

## 1561/2682 FIGURE 1418

GAGGGCTCAGGGGAGCAGCCGGGCCCACAACCACAGCATCCCGGAGACCACCGCATCCGCGACGGCGACTTCGTG GTGCTGAAACGTGAAGATGTGTTTAAAGCAGTACAAGTCCAGCGGAGAAAAAAAGTAACTTTCGAAAAAACAGTGG TTCTACCTGGATAACGTCATTGGCCATAGTTATGGAACTGCATTTGAAGTGACCAGTGGAGGAAGTCTACAGCCC AAGAAGAAGAGGGAAGAGCCTACTGCAGAGACTAAAGAAGCGGGCACTGATAATCGAAATATAGTTGATGATGGG AAATCTCAGAAACTTACTCAAGATGACATAAAAGCTTTGAAGGACAAGGGCATTAAAGGAGAGGAAATAGTTCAG AAAAAATATGAAGCCATCATTACTGTTGTGAAGCCATCCACCCGTATTCTTTCAATTATGTATTATGCAAGAGAA CCTGGAAAAATTAACCACATGAGATACGATACACTAGCCCAGATGTTGACGTTGGGAAATATCCGTGCTGGCAAC AAAATGATTGTGATGGAAACGTGTGCAGGCTTGGTGCTGGGTGCAATGATGGAACGAATGGGAGGTTTTGGCTCC ATTATTCAGCTATACCCTGGAGGAGGACCTGTTCGGGCAGCAACAGCATGTTTTGGATTTCCCAAATCTTTTCTC AGTGGTCTTTATGAATTCCCTCTCAACAAGTGGACAGTCTTCTACATGGAACATTTTCTGCCAAGATGTTATCT TCAGAGCCAAAAGACAGTGCTTTGGTTGAAGAAAGTAATGGCACACTGGAGGAAAAACAGGCTTCTGAACAAGAG AATGAAGACAGCATGGCAGAGGCCCCAGAGAGCCACCCCAGAAGACCAGGAAACAATGGAAACAATTTCTCAA GATCCAGAACATAAGGGGCCTAAAGAGAGAGGAAGCAAAAAAGATTATATTCAGGAAAAACAGAGGAGACAAGAA CGTTTCCACCCCACTCCCCTGCTGCTGTCTTTGCTGGACTTTGTGGCCCCTTCAAGGCCGTTTGTGGTCTACTGT CAGTACAAAGAGCCTCTGTTGGAATGCTACACAAAACTGCGGGAGAGGGGAGGGGTCATCAACCTCAGGCTGTCT GAAACCTGGCTCAGAAATTATCAGGTTTTGCCAGATCGAAGTCATCCTAAACTGCTGATGAGTGGAGGTGGGGGT TATCTTCTCCCGGCTTCACCGTTGCCATGGACAACCTTAAAGCAGACACCAGCCTCAAATCTAATGCAAGCACT  ${\tt TTAGAATCACACGAGACTGAGGAGCCTGCAGCTAAAAAACGAAAATGCCCAGAGTCTGACTCT} \underline{{\tt TAA}}{\tt CCCTTTTGA}$ GAATTGCTCTGAATTTTGTTCTCAGGCATTATACAGTTAGTAATTAAACTTTAAATGCCATTACTACTTGTTTTT GACACAGATGCATTTGGTCTGTCAAAACTGCAACCATGGGGTATGTAGTATGACCAACTGCATTTAACAAAACTC CTCTAAGTACTTCTAAATATTCTGTGCAAATATCTTGAGAACTTCAACATCCTAAAAATGTGTTTCTACAAGACT TTATATTTTAAGCTAAGTGGAATAATACAACGTAACTAAAACATGGCGGGTACCGAAAGGAGGGCAATTCATGGA AGAAATTTCCTCTGTTCATTCCGTTCTCTCAACCTAAGCAATATGGATGTGTGAGTGTGATTTATTATGGTA CCAAAAATGTCCACCTTCTTTCCTGCAGCGGAATAAGCTTTTTTGAAATGCTGAGGTTTTATTTTAATAGTTGAC ΑΑΑΑΑΑΑΑΑΑΑΑΑΑΑΑΑΑΑΑΑ

# 1562/2682 FIGURE 1419

MEGSGEQPGPQPQHPGDHRIRDGDFVVLKREDVFKAVQVQRRKKVTFEKQWFYLDNVIGHSYGTAFEVTSGGSLQ PKKKREEPTAETKEAGTDNRNIVDDGKSQKLTQDDIKALKDKGIKGEEIVQQLIENSTTFRDKTEFAQDKYIKKK KKKYEAIITVVKPSTRILSIMYYAREPGKINHMRYDTLAQMLTLGNIRAGNKMIVMETCAGLVLGAMMERMGGFG SIIQLYPGGGPVRAATACFGFPKSFLSGLYEFPLNKVDSLLHGTFSAKMLSSEPKDSALVEESNGTLEEKQASEQ ENEDSMAEAPESNHPEDQETMETISQDPEHKGPKERGSKKDYIQEKQRRQEEQRKRHLEAAALLSERNADGLIVA SRFHPTPLLLSLLDFVAPSRPFVVYCQYKEPLLECYTKLRERGGVINLRLSETWLRNYQVLPDRSHPKLLMSGGG GYLLSGFTVAMDNLKADTSLKSNASTLESHETEEPAAKKRKCPESDS

#### 1563/2682 FIGURE 1420

# 1564/2682 FIGURE 1421

MAPVRRSAKWRPGGIEARGEGVSTVGYRNKNVRQKTWRPNHPQAFVGSVREGQGFAFRRKLKIQQSYKKLLRKEK KAQTSLESQFTDRYPDNLKHLYLAEEERHRKQARKVDHPLSEQVHQPLLEEQCSIDEPLFEDQCSFDQPQPEEQC IKTVNSFTISKKNKKKTSNQKAQEEYEQIQAKRAAKKQEFERRKQEREEAQRQYKKKKMEVFKILNKKTKKGQPN LNVQMEYLLQKIQEKC

#### 1565/2682 FIGURE 1422

AGCTTCGCGCTAGTGCTGTTTTTTTTTTTTTTTTTTTTAGCAATGCCGGTTCCCGGCGTGGGGCTCTTGACCCG TTTGAACCTGTGTGCCCGGAGAAGAACTCGAGTCCAGCGGCCTATCGTCAGGCTTTTGAGTTGCCCAGGAACTGT GGCCAAAGACCTTAGGAGAGACGAGCAGCCTTCAGGGAGCGTGGAGACAGGCTTTGAAGACAAGATTCCCAAAAG GAGATTCTCTGAGATGCAAAATGAAAGACGAGAACAGGCACAGCGGACTGTTTTAATACATTGCCCAGAGAAAAT CAGTGAAAACAAGTTTCTTAAATATTTATCCCAATTTGGACCTATTAATAATCATTTCTTCTATGAAAGCTTTGG TCTCTATGCTGTCGTAGAATTTTGCCAAAAGGAAAGCATAGGTTCACTGCAGAATGGGACTCATACTCCAAGCAC GGCCATGGAGACTGCAATTCCATTCAGATCACGTTTCTTCAATCTGAAGTTGAAAAACCAGACTTCTGAACGGTC ACGCGTACGGTCAAGTAATCAGTTGCCACGTTCAAACAAGCAGCTTTTTGAATTACTTTGTTATGCAGAAAGTAT AGACGATCAGCTGAACACTCTCTTGAAGGAGTTCCAGCTAACAGAGGAGAACACTAAGCTCCGATATCTCACCTG TTCTCTTATTGAAGACATGGCCGCCGTATTTTCCAGACTGCATAGTCAGACCCTTTGGCTCCTCAGTCAACAC TTTTGGGAAGTTAGGATGTGATTTGGACATGTTTTTGGATCTAGATGAAACCAGAAACCTCAGCGCTCACAAGAT TGTGTTAGGAGAGTGCCTTGACCACTTTGGCCCTGGCTGTGTGGGTGTGCAAAAAATATTAAATGCCCGGTGTCC GCTCGTGAGGTTCTCACACCAGGCCTCCGGATTTCAGTGTGATTTGACTACGAACAATAGGATTGCCTTGACAAG TTCCGAACTCCTTTATATATATGGTGCCCTAGACTCAAGAGTGAGAGCCTTGGTGTTCAGTGTACGGTGCTGGGC TCGAGCACATTCACTAACAAGTAGTATTCCTGGTGCATGGATTACAAATTTCTCCCTTACAATGATGGTCATCTT TTTTCTCCAGAGAAGATCACCCCCTATTCTTCCAACACTAGATTCCTTAAAAACCCTAGCAGATGCAGAAGATAA ATGTGTAATAGAAGGCAACAACTGCACATTTGTTCGTGACTTGAGTAGAATTAAACCTTCACAGAACACAGAAAC ATTAGAATTACTACTGAAGGAATTTTTTGAGTATTTTGGCAATTTTTGCTTTCGATAAAAATTCCATAAATATTCG ACAGGGAAGGGAGCAAAACAAACCTGATTCTTCTCCTCTGTACATTCAGAATCCATTTGAAACTTCTCTCAACAT AAGCAAAAATGTAAGTCAAAGCCAGCTGCAAAAATTTGTAGATTTGGCCCGAGAAAGTGCCTTGATTTTACAACA GGAAGATACAGATCGACCTTCCATATCAAGTAATCGGCCCTGGGGGCTGGTATCCCTATTGCTACCATCTGCTCC AAACAGAAAGTCCTTTACCAAGAAGAAAAGCAATAAGTTTGCAATTGAAACAGCCAAAAACTTGCTAGAATCTTT AAAAGGTAACAGAACAGAAAATTTCACAAAAACCAGTGGGAAGAGAACAATTAGTACTCAGACA**TGA**TGGCTGCT ACAGATCTCAGCTTTCATCTGATGTCACTTTTCATGATCTTCTCATTGGCCCCCTTAACCTGGTCTGAAGTTCTG GGATGTTTTCAGTTTGATCAGTCTGATACTCAGTGGCACTTTATTAAAACATCAGCTGTGGAGTGTGGCGGTGCA CACCTGTAGTCCCAGCTGCTCAGGAGGCTGAGGCAGGAGGATCTCTTGAGCCCAGGATTTTGAATCCATCGTGGA CAACATAGCAAGATTCCATCTCTAAAAAAATGAAAATAAACATAAGCCACAAGGAATGGGTGAAAGATTATTGT AATGTGCTTTAACTAAATAGGTAAATATACTAAACAAATGCTAAAACTCAGTTTTAGGATGAAACCATTGTTGAT ATCCACATCAGTCCCTGTTTAGAAAACATTTAAAATGACTTTTAGTTATGTACAGTACGTTGGCAATGAATACAT TAAGCTTCAAAATTTGGTAGTGCTCTCGAATATGTATATTTGTATTTTCAAGCGAAGTTCTCTTATTCACATAT AAATTAAAGTGGGTTGGTACTGATATCAAAAAATGTTTATGTTTTTAGAACAGACATTTCAGTCACTGCATTCTT AGGTATTCCAAACCAAATATGATGACATCAATAGATTGCATTTTAAAAATATTGTTTGATTTTCTATTTTCAAA AATAAAATTCTGTTTCTAACT

# 1566/2682 FIGURE 1423

MAVPGVGLLTRLNLCARRRTRVQRPIVRLLSCPGTVAKDLRRDEQPSGSVETGFEDKIPKRRFSEMQNERREQAQ RTVLIHCPEKISENKFLKYLSQFGPINNHFFYESFGLYAVVEFCQKESIGSLQNGTHTPSTAMETAIPFRSRFFN LKLKNQTSERSRVRSSNQLPRSNKQLFELLCYAESIDDQLNTLLKEFQLTEENTKLRYLTCSLIEDMAAAYFPDC IVRPFGSSVNTFGKLGCDLDMFLDLDETRNLSAHKISGNFLMEFQVKNVPSERIATQKILSVLGECLDHFGPGCV GVQKILNARCPLVRFSHQASGFQCDLTTNNRIALTSSELLYIYGALDSRVRALVFSVRCWARAHSLTSSIPGAWI TNFSLTMMVIFFLQRRSPPILPTLDSLKTLADAEDKCVIEGNNCTFVRDLSRIKPSQNTETLELLLKEFFEYFGN FAFDKNSINIRQGREQNKPDSSPLYIQNPFETSLNISKNVSQSQLQKFVDLARESALILQQEDTDRPSISSNRPW GLVSLLLPSAPNRKSFTKKKSNKFAIETAKNLLESLKGNRTENFTKTSGKRTISTQT

## 1567/2682 FIGURE 1424

TTTGCTAAAGCCACCATAAAGGAAATAGTTGTGTGGCCC<u>ATG</u>TTGAGGCCAGACATCTTTACTGGTTTAAGGGGA CCCCTAAAGGAATTTTGCTCTTTGGTCCTCCTGGGACTGGTAAAACTCTAATTGGCAAGTGCATTGCTAGTCAG TCTGGGGCAACATTCTTTAGCATCTCTGCTTCATCCTTAACTTCTAAATGGGTAGGTGAGGGGGAGAAAATGGTC CAACGGGGAGATGGTGAGCATGAATCTTCTAGAAGGATAAAAACAGAATTTTTAGTTCAATTAGATGGAGCAACA ACATCTTCTGAAGATCGTATCCTAGTGGTGGGAGCAACAAATCGGCCACAAGAAATTGATGAGGCTGCCCGGAGA AAAGAGCAGTGTTGCCTCAGTGAAGAAGAAATTGAACAGATTGTACAGCAGTCTGATGCGTTTTCAGGAGCAGAC ATGACACAGCTTTGCAGGGAGGCTTCTCTTGGTCCTATTCGCAGTTTACAAACTGCTGACATTGCTACCATAACA  $\tt CCGGATCAAGTTCGACCCATAGCTTACATTGATTTTGAAAATGCTTTTAGAACTGTGCGACCTAGTGTTTCTCCA$ AAAGATTTAGAGCTTTATGAAAACTGGAACAAAACTTTTGGTTGTGGAAAG<u>TAA</u>GTGGGATACTTGGAATCAAGG CATCTCTGTAGTACAGTCTTCTTTATTTTTTAGCATAGAAAGTTGGGGGATGTGTTAATTGTATTTTTAAGAATAT ATTCTAAGTTCTGTACTTCAAATAATAGCACAGATTTTACATCTGATTGACATAGTGTATGTTAATGTAAGTTTT GCTTTCCAGTGATTACCTGATACGTAAGCCTATTTGAACAAAGTGAGAATGAACTTTTGTTTCTAAGAAGTCTTT TTAATATTCATCTTTTATTGAAGAAAGTGCCTTCTGATGGCCACATAATTCTTAATGTCAGCTAGTATAATGGTT TACATTTGGACAAAGTATTGCTTAGTGTTATTTAAGTAGATTTAAGATCTCAAAAGCTAAAGTGCCAATTTTTACT TTCTTCAGCCAATTTGTTACCTCTTTTATGGTTTTAAATTTTTATCAGGACTAACATTTTCAGAAATAGCAAGGT TTAACATTAATATTTTATTTGACACTACAGCCTGTAATACTGCTCTCTTTCAAAAACAAGTTTTCAGATTTTTAT AACAGACCCATTTTGTTTTATGAAACATGTTCATTACAGAAACATGAGAAAATAGAGATAAGTAAAAAAGAATAAA AGTCACTATTATCCTACCACTTTGCGGGACACACTATTAATATTTAAGCATAGATTCTTCCAGATGTTTTGTTTT ATACAGCAGTAGGATTGTGTAATGTATTCTCTTTTTAGCCTATTCTTCAAAGCGTATCTTCACTTTCCATGTTA  ${\tt TATAGGACAGGACGCTAGGTTGTTTATCTTTTGTTATAGGAACTATGTGGGATGCATTTGGTGATCTTT}$ TTAAAAAATGTATAAATTTCTTGAGTAATTCCTGGATTAAAGAATATGCACTTCTT

# 1568/2682 FIGURE 1425

MLRPDIFTGLRGPPKGILLFGPPGTGKTLIGKCIASQSGATFFSISASSLTSKWVGEGEKMVRALFAVARCQQPA VIFIDEIDSLLSQRGDGEHESSRRIKTEFLVQLDGATTSSEDRILVVGATNRPQEIDEAARRRLVKRLYIPLPEA SARKQIVINLMSKEQCCLSEEEIEQIVQQSDAFSGADMTQLCREASLGPIRSLQTADIATITPDQVRPIAYIDFE NAFRTVRPSVSPKDLELYENWNKTFGCGK

## 1569/2682 FIGURE 1426

 $\tt CGTGGTTTCCGGAACTTCGCCCGGGTCTCTGGGCTTTTGCTCTGTCAGGCTGGTGGCGTTTTGGTGTCTTCGTTT$  ${\tt GTT} \underline{\textbf{ATG}} {\tt GCCGCTGTCGCTATGGAGACAGATGATGCTGGAAATCGACTTCGGTTTCAGTTGGAGTTGGAATTT}$ GTGCAATGTTTAGCCAACCCAAATTACCTTAATTTTCTTGCCCAAAGAGGTTACTTCAAAGACAAAGCTTTTGTT AATTATCTTAAATACTTGCTTTACTGGAAAGACCCAGAATATGCCAAGTATCTAAAGTACCCTCAGTGTTTACAC ATGTTAGAGCTGCTCCAATATGAACACTTCCGAAAGGAGCTGGTGAATGCTCAGTGTGCGAAATTTATTGATGAA CAGCAGATTCTACATTGGCAGCACTATTCCCGGAAGCGGATGCGCCTTCAGCAAGCCTTGGCAGAGCAGCAACAG CAAAATAACACATCGGGAAAA TGA AAAACTGGATACAAACGAGGCACTTAATACATGTATATAATGTATTTCTTTTGTACAGTGAAGACAAAAAAAATGAAAACTCTTCCTATCTACCTTTATTATGGTAGCCCCTAGAACCTTTAGTGT GCTTTTCATCCAACTTTTATTGTTAATAGACTATTTCTGTTAAACCTGAATTGTTCTTTGATTTCCCTGTGGA TTTGTAAGGTGTTTTTCTTTTTTACGCATTTAGCATAATCAGCTGATTAAGAATGGAAAAGTTAGGTGCTTTAGA CCAAATAAGGCACTGGGGCATGGGGTAGGGGTGGGCCACCAAGTATACTGAATTCTAAGGCTAGCTGTTCCTGAC ATATAGTAGGGCAAGACCATCTCCTGGAACCTTACTGTCTCAGATCAACTACTCTACCACTCTAACTATGT AGTGAGAGTAGCGGAGTCACTGACCTCTTTAAATCATAGGACAGGAACTGCATAAAGGTTCTTGAATTCTGCAGG ACAGGAAATAACTGTATTACCTGCTTTGCAAGGTGGCTTTAAGAATCACTGAATCACTGTGGCCTCACTTGACCT ACTTGTGTTCATTTGGGAAAGCTACCATTGATTTGGGAGGTACCACAAACCAGGTGCTATGTTAAGTGCTT

# 1570/2682 FIGURE 1427

 ${\tt MAAAVAMETDDAGNRLRFQLELEFVQCLANPNYLNFLAQRGYFKDKAFVNYLKYLLYWKDPEYAKYLKYPQCLHMLLQYEHFRKELVNAQCAKFIDEQQILHWQHYSRKRMRLQQALAEQQQQNNTSGK}$ 

#### 1571/2682 FIGURE 1428

TCTGTGAGCTCTTTCCTTATGGGGACCCTGGCCACCAGCTGCCTCCTTCTCTTTGGCCCTCTTGGTACAGGGAGGA GCAGCTGCGCCCATCAGCTCCCACTGCAGGCTTGACAAGTCCAACTTCCAGCAGCCCTATATCACCAACCGCACC TTCATGCTGGCTAAGGAGGCTAGCTTGGCTGATAACAACACAGACGTTCGTCTCATTGGGGAGAAACTGTTCCAC GGAGTCAGTATGAGTGAGCGCTGCTATCTGATGAAGCAGGTGCTGAACTTCACCCTTGAAGAAGTGCTGTTCCCT CAATCTGATAGGTTCCAGCCTTATATGCAGGAGGTGGTGCCCTTCCTGGCCAGGCTCAGCAACAGGCTAAGCACA TGTCATATTGAAGGTGATGACCTGCATATCCAGAGGAATGTGCAAAAGCTGAAGGACACAGTGAAAAAGCTTGGA GAGAGTGGAGAGATCAAAGCAATTGGAGAACTGGATTTGCTGTTTATGTCTCTGAGAAATGCCTGCATT<u>TGA</u>CCA GAGCAAAGCTGAAAAATGAATAACTAACCCCCTTTCCCTGCTAGAAATAACAATTAGATGCCCCAAAGCGATTTT  ${\tt TTCGATATTGCTACTTGAGTGTAAGGCTAATATTGATATTTATGACAATAATTATAGAGCTATAACATGTTTATT}$ 

# 1572/2682 FIGURE 1429

MAALQKSVSSFLMGTLATSCLLLLALLVQGGAAAPISSHCRLDKSNFQQPYITNRTFMLAKEASLADNNTDVRLI GEKLFHGVSMSERCYLMKQVLNFTLEEVLFPQSDRFQPYMQEVVPFLARLSNRLSTCHIEGDDLHIQRNVQKLKD TVKKLGESGEIKAIGELDLLFMSLRNACI

# FIGURE 1430

CTCGAAAAGGCCCCATGTGGGCAGGGGGTGTGGCAGGAGČTCCCAGCACTGGAGACCCACGGACTCAACCCAGTT  ${\tt ACCTCACATGGGGCCTTTTCTGAGCAAGGTCTCGAAAGCGCAGGCCGCCCTGGCTGAGCAGCACCGCCCTTTCCC}$ TATGCCGAATGCAGCCAAAATTCCTTTTTACAATTTGTGATGCCTTACCGATTTGATCTTAATCCTGTATTTAAA GTTTTCTAACACTGCCTTATACTGTGTTTCTCTTTTTGGGGGAGCTTAACTGCTTGTTGCTCCCTGTCGTCTGCA GAGGACGCATCCGTATGTGGTTCCAGTGGAGCGAGCAGCGCGACTACATCGACACCACCTGGAACTGCGGCTAC CTGCTGGCCTCGTCCTTCGTCTTCCTCAACTTGCTGGGACAGCTGACTGGCTGCGTCCTGGTGTTGAGCAGGAAC TTCGTGCAGTACGCCTGCTTCGGGCTCTTTGGAATCATAGCTCTGCAGACGATTGCCTACAGCATTTTATGGGAC TTGAAGTTTTTG**ATG**AGGAACCTGGCCCTGGGAGGAGGCCTGTTGCTGCTCCTAGCAGAATCCCGTTCTGAAGGG AAGAGCATGTTTGCGGGCGTCCCCACCATGCGTGAGAGCTCCCCCAAACAGTACATGCAGCTCGGAGGCAGGGTC TTGCTGGTTCTGATGTTCATGACCCTCCTTCACTTTGACGCCAGCTTCTTTTCTATTGTCCAGAACATCGTGGGC TTCTTCCAGACCATGTCGGTGATTGGGGGCCTTGCTCCTGGTGGTGGCCCTGGGCCCTGGGGGTGTCTCCATGGAT GAGAAGAAGAAGGAGTGG<u>TAA</u>CAGTCACAGATCCCTACCTGCCTAGGCCAAGACCCGTGGCCGTCAAGGACTGGTT CGGGGTGGATTCAACAAAACTGCCAGCTTTTATGTATCCTCTTCCCTTCCCCTTCGCTAAAGGCACAGATGT TTTGAGAACTTTATTTGCAGAGACACCTGAGAATCGATGGCTCAGTCTGCTCTGGAGCCACAGTCTGGCGTCTGA TGTGGCATCTCAGTCCTATTTTTGAGTTTTTTTGTGGGGGTACAGGAGGGGGCCTTCAAGCTGTACTGTGAGCAG ACGCATTGGTATTATCATTCAAAGCAGTCTCCCTCTTATTTGTAAGTTTACATTTTTAGCGGAAACTACTAAATT ATTTTGGGTGGTTCAGCCAAACCTCAAAACAGTTAATCTCCCTGGTTTAAAATCACACCAGTGGCTTTGATGTTG  $\tt TTTCTGCCCCGCATTGTATTTTATAGGAATAGTGAAAACATTTAGGGACACCCAAAGAATGATGCAGTATTAAAG$ GGGTGGTAGAAGCTGCTGTTTATGATAAAAGTCATCGGTCAGAAAATCAGCTTGGATTGGTGCCAAGTGTTTTAT  $\tt TGGGTAACACCCTGGGAGTTTTAGTAGCTTGAGGCAAGGTGGAGGGGCAAGAAGTCCTTGGGGAAGCTGCTGGTC$ CCTGCAAGCCAGCCTGGCCAGCTGCTCAGACCAGCTTGCAGAGCCGCAGCCGCTGTGGGCAGGGGGTGTGGCAGG AGCTCCCAGCACTGGAGACCCACGGACTCAACCCAGTTACCTCACATGGGGCCTTTTCTGAGCAAGGTCTCGAAA GCGCAGGCCGCCCTGGCTGAGCAGCACCGCCCTTTCCCAGCTGCACTCGCCCTGTGGACAGCCCCGACACACCAC TTTCCTGAGGCTGTCGCTCACTCAGATTGTCCGTTTGCTATGCCGAATGCAGCCAAAATTCCTTTTTACAATTTG TGATGCCTTACCGATTTGATCTTAATCCTGTATTTAAAGTTTTCTAACACTGCCTTATACTGTGTTTCTCTTTTT  ${\tt GGGGGAGCTTAACTGCTTGTTGCTCCTGTCGTCTGCACCATAGTAAATGCCACAAGGGTAGTCGAACACCTCTC}$ TGGCCCCTAGACCTATCTGGGGACAGGCTGGCTCAGCCTGTCTCCAGGGCTGCTGCGGCCCAGCCCCGAGCCTGC CTCCCTCTTGGCCTCTCATCCATTGGCTCTGCAGGGCAGGGTTGAGGCAGGTTTCTGCTCATAAGTGCTTTTTGGA AGTCACCTACCTTTTTAACACAGCCGAACTAGTCCCAACGCGTTTGCAAATATTCCCCTGGTAGCCTACTTCCTT  ${\tt ACCCCGAATATTGGTAAGATCGAGCAATGGCTTCAGGACATGGGTTCTCTTCTCTGTGATCATTCAAGTGCTC}$ ACTGCATGAAGACTGGCTTGTCTCAGTGTTTCAACCTCACCAGGGCTGTCTCTTGGTCCACACCCTCGCTCCCTGT ATTGGTGGAAAGTAGGGTGGACCAAAGGAGGCCACGTGAGCAGCACCAGTTCTGCACCAGCAGCGCCCTCCG TCCTAGTGGGTGTTCCTGTTTCTCCTGGCCCTGGGTGGGCCTGATTCGGGAAGATGCCTTTGCAGGGAG GGGAGGATAAGTGGGATCTACCAATTGATTCTGGCAAAACAATTTCTAAGATTTTTTTGCTTTATGTGGGAAACA GATCTAAATCTCATTTTATGCTGTATTTTATATCTTAGTTGTGTTTTGAAAACGTTTTGATTTTTTGGAAACACATC AAAATAAATAATGGCGTTTGTTGTATGCAGTGTGATCCTATAGCGTTGCCCAGCCTGAATGGGGCTCCCCTCAGG ATGCCAGTGAGCGAGGTTACTTCTCTAGGCTTCTCTGAAGACCACTCAGAAGCCATGTCCAGAGAGAATTAGTCC CTCAGAGTCCCTGCTGCTTCCTGGGTGTGGGGGACAGACTCCCTCAGCCCTGCCTTAGAGGGCAGCAGATGTCAT GAGACAAGGATAAGTGGGTAGAGAAGACACTGGGGACAACCCGATCATTCAGAGGACACACGGTTTGATCAGGAG CGGGGGAAATATCTGAAGGCTTTCTCGAAACTTCACGGCATGTGCT

# 1574/2682 FIGURE 1431

 ${\tt MRNLALGGGLLLLIAESRSEGKSMFAGVPTMRESSPKQYMQLGGRVLLVLMFMTLLHFDASFFSIVQNIVGTALM} \\ {\tt ILVAIGFKTKLAALTLVVWLFAINVYFNAFWTIPVYKPMHDFLKYDFFQTMSVIGGLLLVVALGPGGVSMDEKKKEW} \\ {\tt EW}$ 

## 1575/2682 FIGURE 1432A

GCTGACGGTTGCTGCACACACAGTCCCCACGTCAGATCCTGAGCTTGCAGGGGAGAGCTCCGTCGGGCTGGGAAG CGCCAGCCCTGGTTTGCAACAGCACACGCGCTGTCCAGAGCCTGGGGGCCTCCTGCTGCTCTGGAGATTTT  $\tt CGGA{\color{blue}{TAA}} CTGTAAACGTGATCTTACTATTCAGTCAACCATGTGGCCCTCTAGGTGTGGCACCCTGGCTGTCACCT$ AAGCCAACCCTTGTTCTGTCAGGGTACTCTGGGCGTCACTGGGCAGGCTGGGAGGTCCAGGCCCTTGGCACCTCA GCCATGTGTGACCTGCAGGCTGGGGTCAAGTCTTGGCATTGCACCATCAGGTCTGCGAAGCCTAGGGGAACCCCT TCCCGCTGGGTTTAATATAGCCATTTGTAAGGTGAGGGGTTGGACCAGAGCAGCGGAGATGCCTGGCAAAGTGCA GCGGTGCCTCAGGAGGGAGGCTGCTGCTGCATGTCGTGGGCAGACATGTCGTGCGTCATAGCCTGCAGCACCCA GGATGACCCACGGCAAAGAGTGGCCTGGCCTCAGATGCCAGTAGTGCTGAGGTGCAGAAACGTTGGATAGATGAC CTCTAAGTGCCTTTTCAGATGTCATTCTGTGATTCCAACTTGTAAATGCCTTTTGACCGAAAAGAGCAGCTCTGTG AGGGCTGCTGCCCTATAGGATCTGCCCCAGAGGGCCTAACGTCAAGTCATGCATCTCCGGGACTGATCCTTGGAT CACCGGGGCTGACAAGAGCTCTTGCCTTCCACAGCGTCTGTTCCTCACACACCCCGCCCAAGGACGTGCCTGGCA  ${\tt GCGGCCTGGTGCTCCCGCGCAGCCACCTCACCCTTGGGTTTCTGTGGCCCTGCAGTTCCTCCGTGTCACAAAG}$ TGGAGCGAGCAGCGCGACTACATCGACACCACCTGGAACTGCGGCTACCTGCTGGTCCTCGTCTTCCTC AACTTGCTGGGACAGCTGACTGGCTCCTGGTGTTGAGCAGGAACTTCGTGCAGTACGCCTGCTTCGGGCTC TTTGGAATCATAGCTACTGCAGACGATTGCCTTACAGCATTTTATGGGACTTGAAGTTTTTGATGAGGAACCTGG GCCCTGGGAGGAGGCCTGTGCTGCTCCTAGCAGAATCCCGTTCTGAAGGGAAGAGCATGTTTGCGGGCGTCCCCA  ${\tt CCATGCGTGAGAGCTCCCCCAAACAGTACATGCAGCTCGGAGGCAGGGTCTTGCTGGTTCTGATGTTCATGACCC}$ TCCTTCACTTGGACGCCAGCTTCTTTTCTATGTCCAGAACATCGTGGGCACAGCTCTGATGATTTTAGTGGCCAT TGGTTTTAAAACCAAGCTGGCTGCTTTGACTCTTGTTGTGCGGCTCTTTGCCATCAACGTATATTTCAACGCCTT CTGGACCATTCCAGTCTACAAGCCCATGCATGACTTCCTGAAATACGACTTCTTCCAGACCATGTCGGTGATTGG GGGCTTGCTCCTGGTGGTGGCCCTGGGGCCCTGGGGGTGTCTCCATGGATGAGAAGAAGAAGAAGGAGTGGTAACAGTC ACAGATCCCTACCTGCCTAGGCTAAGACCCGTGGCGTCAAGGACTGGTTCGGGGTGGATTCAACAAAAACTGCAGC TTTTATGTATCCTCTTCCCTTCCCTTGGTAAAGGCACAGATGTTTTGAGAACTTTATTTGCAGAGACACC TGAGAATCGATGGCTCAGTCTGCTCTGGAGCCACAGTCTGGCGTCTGACCCTTCAGTGCAGGCCAGCCTGGCAGC TGGAAGCCTCCCCACGCCGAGGCTTTGGAGTGAACAGCCCGCTTGGCTGTGGCATCTCAGTCCTATTTTTGAGT TTTTTTGTGGGGGTACAGGAGGGGCCTTCAAGCTGTACTGTGAGCAGACGCATTGGTATTATCATTCAAAGCAG TCTCCCTCTTATTTGTAAGTTTACATTTTTAGCGGAAACTACTAAATTATTTTGGGTGGTTCAGCCAAACCTCAA AACAGTTAATCTCCCTGGTTTAAAATCACACCAGTGGCTTTGATGTTGTTTCTGCCCCGCATTGTATTTTATAGG AATACTGAAAACATTTAGGGACACCCAAAGAATGATGCAGTATTAAAGGGGTGGTAGAAGCTGCTGTTTATGATA AAAGTCATCGGTCAGAAAATCAGCTTGGATTGGTGCCAAGTGTTTTATTGGGTAACACCCTGGGAGTTTTAGTAG CTTGAGGCAAGGTGGAGGGGCAAGAAGTCCTTGGGGAAGCTGCTGGTCTGGGTGCTGCCTGGCCTCCAAGCTGGCA AGACCAGCTTGCAGAGCCGCAGCCGCTGTGGGCAGGGGGTGTGGCAGGAGCTCCCAGCACTGGAGACCCACGGAC TCAACCCAGTTACCTCACATGGGGCCTTTTCTGAGCAAGGTCTCGAAAGCGCAGGCCGCCCTGGCTGAGCAGCAC TGTCCGTTTGCTATGCCGAATGCAGCCAAAATTCCTTTTTACAATTTGTGATGCCTTACCGATTTGATCTTAATC CTGTATTTAAAGTTTTCTAACACTGCCTTATACTGTGTTTCTCTTTTTTGGGGGAGCTTAACTGCTTGTTGCTCCC TGTCGTCTGCACCATAGTAAATGCCACAAGGGTAGTCGAACACCTCTCTGGCCCCTAGACCTATCTGGGGACAGG ACTAGTCCCAACGCGTTTGCAAATATTCCCCTGGTAGCCTACTTCCTTACCCCCGAATATTGGTAAGATCGAGCA ATGGCTTCAGGACATGGGTTCTCTTCTCCTGTGATCATTCAAGTGCTCACTGCATGAAGACTGGCTTGTCTCAGT GTTTCAACCTCACCAGGGCTGTCTCTTGGTCCACACCTCGCTCCCTGTTAGTGCCGTATGACAGCCCCCATCAAA GAGGCCACGTGAGCAGTCAGCACCAGTTCTGCACCAGCAGCGCCTCCGTCCTAGTGGGTGTTCCTGTTTCTCCTG

# 1576/2682 FIGURE 1432B

1577/2682 FIGURE 1433

 $\verb|LTVAAHTVPTSDPELAGESSVGLGSASPGLQQHTCAVQSLGPPPAALEIFG|$ 

## 1578/2682 FIGURE 1434

GGCGGAGAGGGCCGGCCGCCACATTCCTGTGGAGGCCGCAGCGGGTGCGGCGCCGACGGGAGGAGCAGCGAG  ${\tt CGAGCGACGAACGCCGAGCCGAGCCTCCCGCCGTCGCC}$ TGGAGGACGGCATCCGTATGTGGTTCCAGTGGAGCGAGCAGCGGCGACTACATCGACACCACCTGGAACTGCGGCT ACCTGCTGGCCTCGTCCTTCGTCTTCCTCAACTTGCTGGGACAGCTGACTGGCTGCGTCCTGGTGTTGAGCAGGA ACTTCGTGCAGTACGCCTGCTTCGGGCTCTTTGGAATCATAGCTCTGCAGACGATTGCCTACAGCATTTTATGGG ACTTGAAGTTTTTGATGAGGAACCTGGCCCTGGGAGGAGGCCTGTTGCTGCTCCTAGCAGAATCCCGTTCTGAAG GGAAGAGCATGTTTGCGGGCGTCCCCACCATGCGTGAGAGCTCCCCCAAACAGTACATGCAGCTCGGAGGCAGGG TCTTGCTGGTTCTGATGTTCATGACCCTCCTTCACTTTGACGCCAGCTTCTTTTCTATTGTCCAGAACATCGTGG ACTTCTTCCAGACCATGTCGGTGATTGGGGGGCTTGCTCCTGGTGGTGGCCCTGGGGCCCTGGGGGTGTCTCCATGG  $\tt ATGAGAAGAAGAAGGAGTGG{\color{red}{\textbf{TAA}}} CAGTCACAGATCCCTACCTGCCTGGCTAAGACCCGTGGCCGTCAAGGACTGG$ TTCGGGGTGGATTCAACAAAACTGCCAGCTTTTATGTATCCTCTTCCCTTCCCCTTCGCTAAAGGCACAGAT GTTTTGAGAACTTTATTTGCAGAGACACCTGAGAATCGATGGCTCAGTCTGCTCTGGAGCCACAGTCTGGCGTCT GACCCTTCAGTGCAGGCCAGCCTGGCAGCTGGAAGCCTCCCCCACGCCGAGGCTTTGGAGTGAACAGCCCGCTTG GCTGTGGCATCTCAGTCCTATTTTTGAGTTTTTTTGTGGGGGTACAGGAGGGGGCCTTCAAGCTGTACTGTGAGC AGACGCATTGGTATTATCATTCAAAGCAGTCTCCCTCTTATTTGTAAGTTTACATTTTTAGCGGAAACTACTAAA TTATTTTGGGTGGTTCAGCCAAACCTCAAAACAGTTAATCTCCCTGGTTTAAAATCACACCAGTGGCTTTGATGT TGTTTCTGCCCCGCATTGTATTTTATAGGAATACTGAAAACATTTAGGGACACCCAAAGAATGATGCAGTATTAA AΑ

## 1579/2682 FIGURE 1435

MGQNDLMGTAEDFADQFLRVTKQYLPHVARLCLISTFLEDGIRMWFQWSEQRDYIDTTWNCGYLLASSFVFLNLL GQLTGCVLVLSRNFVQYACFGLFGIIALQTIAYSILWDLKFLMRNLALGGGLLLLLAESRSEGKSMFAGVPTMRE SSPKQYMQLGGRVLLVLMFMTLLHFDASFFSIVQNIVGTALMILVAIGFKTKLAALTLVVWLFAINVYFNAFWTI PVYKPMHDFLKYDFFQTMSVIGGLLLVVALGPGGVSMDEKKKEW

#### 1580/2682 FIGURE 1436A

CCTCTCCGGCACTTGGGCTCCAGTCGCGCCCTCCAAGCCCTTCAGGCCGCCCCAGTGTCCTCCTTCTTCCGGC CAGACCCAGCCCGCGAAGATGGTGGACCGCGAGCAACTGGTGCAGAAAGCCCGGCTGGCCGAGCAGGCGGAGCG CTACGACGACATGGCCGCGCCATGAAGAACGTGACAGAGCTGAATGAGCCACTGTCGAATGAGGAACGAAACCT TCTGTCTGTGGCCTACAAGAACGTTGTGGGGGCACGCCGCTCTTCCTGGAGGGTCATCAGTAGCATTGAGCAGAA GACATCTGCAGACGGCAATGAGAAGAATTGAGATGGTCCGTGCGTACCGGGAGAAGATAGAGAAGAGTTGGA GGCTGTGTGCCAGGATGTGCTGAGCCTGCTGGATAACTACCTGATCAAGAATTGCAGCGAGACCCAGTACGAGAG CAAAGTGTTCTACCTGAAGATGAAAGGGGACTACTACCGCTACCTGGCTGAAGTGGCCACCGGAGAGAAAAGGGC CCCCATCCGATTAGGCCTGGCTCŤTAACTACTCCGTCTTCTACTATGAGATCCAGAACGCCCCAGAGCAAGCGTG CCACTTGGCCAAGACCGCGTTCGACGACGCCATCGCCGAGCTTGACACCCTCAACGAGGACTCCTACAAGGACTC CACGCTCATCATGCAGCTCCTCCGCGACAACCTCACGCTCTGGACGAGCGACCAGCAGGACGACGATGGCGGCGA  $\mathtt{AGGCAACAAT}$   $\underline{\mathtt{TAA}}$   $\mathtt{GGCCCCAGGGGAACTGGCAGCGCACGCGGATGCTACTACTGCAGTCTTTATTTTTTCCCAT$ GAGTTGGGGGTCGGGTGGGGAGGGAAAGGGAGGATGACCTTCCCAGGGAGAAACCCACGACCTGTCCTGTCTT TGATCGCCTCTTTGACATTTTTGCCAAAATACCACTAGTGGAAAGTCAGGCTAGCTGTGCTGGTATTGGAATAGC TAGATAATAGGGTTTTCAGATGAAAAGAAAACTTAAAGAGGAATGGCCCTCATTCAGTAAGTTCTGTGGTTCCAG TAAGGATTTTTATGTACATACGCTCTCGTCTCTCGTTTTGGGTACTTTCTATCTCATCTGTCTCGGCTCTGCATG TTTTCCAGGGTGTAGCCTACAGACATGGAACAGTGTAAATCCCAGACTGACAGACTTAGAACCTGAGGTCTCATT CATCCTTATGGTTTAGGCCTTGCCAGTTTTCCGAAGTCTCTGATTAGTTGACAGTATTAACACTAAATTGCAGTT TACAGTATTTCTACATTACAGCCATATGTAACATCAAGCCATCGATTGTGTACTTTTCCTTTGCTAGTTGTTTTGG GCTTTAACATCCTTATTCAGCCTTATCCAGGTTGGTTTTGCTGTTGATCGGTCTCCTAGGCTAAATGAGAATGAA TTAACGTAAATCCACCACCAAAATTATTAATCCTCTTGAGAGAAACGTGAAACGCCACAAAAATAGAGAAAATTC AGGGATCACACTGCCGTCACCCACTCTGCACTGGGGCGTTTCCTACTGCGCCTCGTGCTGGCGGACGCAGCTGGG TGCAGAAGCTGTGGGGTCGGAGAGGCGTTTGGAGAAGGTCTGTGGTGCAGTGTGTAAAATTCAGGTGCTAGAAG CCTACTGGTAGAAAAACCCAAAAGGAAGACTATATCCTTAACCATTCTGTCCAATTTCGGGAGCCTTGTCAGTG AATTGGAGATTGGCTTGTCTCACGCAGCCAGTGCACATTTGGAATTGACGGAAACAACGTTGCTATTTCCACCCA TTTGTTTTCGGCAGCCTTAAGGCCCTCATTCTCATTTCGGGTGAATCTGTCTATCTGTGAACGTGGCCCGCATGT GCATTCTTTTTTTATATATATAAAGTCAGTGACGAGGCACTCCCGAGACGTGTAATGACACCACACTTGTTTTC TTTGTTTCTTTGTTTTATTTAGGCAAGAGAGGTGTGAGTAATTGAGGAAAAACTGACAGATGCTTTTGCTAATA CCAAAATTGAGCTTACAATTAGGAACTGAGTATGTGTAACAGGATACAGGTGACAGTGAAGATAGAAGAACCACG ATGACCACAGACTCAATGTGCTCTGTAACATCGCACAGTTTACCCAGCATGACTTTCCTTAGGAGGCCCCCTCCT CACGCTAGAGTAAAAGTCCCAGTTAAGTGAAGCCTACCAGAAGAACTAGTAGAAGAAGCTTTGCCGCTTTTGTGC GGCTTTCCCTAATTTATCTTCATGTCCAGTGAGCAGTGTTGCGTTTTTCCTTGTAGCATTTGGAAATGATTTACT GGAATTACAAAACCTATTTTTCCTTTAAATTTCAGCTTTGGCTCTGGCTGCTTTTTAGAATAATGCAAGATAAAA ATCACACCTGAGGGCTGAAAACGGAGAGGGAATGGGAGACTTGATATTTAAGCAGCTTGAATGGTTTTTCTTTTC TTTATTTTAAAGAAATGCACTTGCCTATGATACTGTCTCCCAGTGAAATGATTACTCCTCCATTACTCTATTG ATACAATATTGTGCATGCTAGTGTTGTATTTCTATACAGTAGCTTGAAATTGATTAACTTATACTGTAGGTGTTA TGGGGGTAAAGTTTGCTCTACCAAATAGTGATTGTAACAAATTGATCTGTTTTTGGATGTTGCTATAGTGACATGC AGTTATATTTTTGTTTTTAAAAGGGGGGGGGCCAAAAGAACACCCGGTGTTAGCTTAATCTTAATGTCTGGTGTT TGTCATGGTGAAATTATAACTATTACAGTGTTGGAGAACAACAAATATGTTCTCTGAATGAGCCTTTGTGCTTTT TGTCATGTTATGCAGTGAACTATTTTTAAGGTCTAATCAGTGATTATTTTTCCAGCTCCGTGTTTCTCTAAGGAA

# 1581/2682 FIGURE 1436B

 ${\tt TTATTTCACACACGGACCATCTTTAGCAGTTTCCTCAGTGATGGAATATCATGAATGTAGGTCATTATGTAGCTGTGACATTGAGCAAATAAACTTACAGATCTGACGCC}$ 

# 1582/2682 FIGURE 1437

MVDREQLVQKARLAEQAERYDDMAAAMKNVTELNEPLSNEERNLLSVAYKNVVGARRSSWRVISSIEQKTSADGN EKKIEMVRAYREKIEKELEAVCQDVLSLLDNYLIKNCSETQYESKVFYLKMKGDYYRYLAEVATGEKRATVVESS EKAYSEAHEISKEHMQPTHPIRLGLALNYSVFYYEIQNAPEQACHLAKTAFDDAIAELDTLNEDSYKDSTLIMQL LRDNLTLWTSDQQDDDGGEGNN

## 1583/2682 FIGURE 1438

## 1584/2682 FIGURE 1439

MALASGPASAKHGSGQLGLGGFGARDAGYEWGVRSTRKSEPPPLDRVYEIPGLEPITFAGKMHFVPWLARPIFPP WDRGYKDPRFYRSPPLHEHPLYKDQACYIFHHRCRLLEGVKQALWLTKTKLIEGLPEKVLSLVDDPRNHIENQDE CVLNVISHARLWQTTEEIPKRETYCPVIVDNLIQLCKSQILKHPSLARRICVQNSTFSATWNRESLLLQVRGSGG ARLSTKDPLPTIASREEIEATKNHVLETFYPISPIIDLHECNIYDVKNDTGFQEGYPYPYPHTLYLLDKANLRPH RLQPDQLRAKMILFAFGSALAQARSSMGMMPRSWSSPWWCRAWARMDVSSIS

#### 1585/2682 FIGURE 1440

AAGTGCTGGTGCCCTCTGCCGCTGCTCCCGTCTCTTTGGTTACGCTCGTCAGCCGGTCGGCCGCCGCCTCCAGCC GTGTGCCGCTATGGGAGTCCCGGCGTTCTTCCGCTGGCTCAGCCGCAAGTACCCGTCCATCATAGTCAACTGCGT GGAAGAGAGCCAAAAGAATGCAATGGTGTAAAGATTCCAGTTGATGCCAGTAAACCTAATCCAAATGATGTGGA GTTTGATAATCTGTATTTGGATATGAATGGAATCATCCCTGTACTCATCCTGAAGACAAACCAGCACCAAA AAATGAAGATGAATGATGGTTGCAATTTTTGAGTACATTTGACAGACTTTTCAGTATTGTAAGACCAAGAAGACT TCTCTACATGGCAATAGATGGAGTGGCACCACGTGCTAAAATGAACCAGCAGCGTTCAAGGAGGTTCAGGGCATC AAAAGAAGGAATGGAAGCAGCCGAGAAGCAGCGAGTCAGGGAAGAAATATTGGCAAAAGGTGGCTTTCTTCC TCCAGAAGAATAAAAGAAAGATTTGACAGCAACTGTATTACACCAGGAACTGAATTCATGGACAATCTTGCTAA ATGCCTTCGCTATTACATAGCTGATCGTTTAAATAATGACCCTGGGTGGAAAAATTTGACAGTTATTTTATCTGA TGCTAGTGCTCCTGGTGAAGGAGAACATAAAATCATGGATTACATTAGAAGGCAAAGAGCCCAGCCTAACCATGA CCCAAATACTCATCATTGTTTATGTGGAGCAGATGCTGATCTCATTATGCTTGGCCTTGCCACACATGAACCGAA CTTTACCATTATTAGAGAAGAATTCAAACCAAACAAGCCCCAAACCATGTGGTCTTTGTAATCAGTTTGGACATGA GGTCAAAGATTGTGAAGGTTTGCCAAGAGAAAAGAAGGGGAAAGCATGATGAACTTGCCGATAGTCTTCCTTGTGC AGAAGGAGGTTTATCTTCCTTCGGCTTAATGTTCTTCGTGAGTATTTGGAAAGAGAACTCACAATGGCCAGCCT ACCATTCACATTTGATGTTGAGAGGAGCATTGATGACTGGGTTTTCATGTGCTTCTTTGTGGGAAATGACTTCCT CCCTCATTTGCCATCGTTAGAGATTAGGGAAAATGCAATTGACCGTTTGGTTAACATATACAAAAATGTGGTACA CAAAACTGGGGGTTACCTTACAGAAAGTGGTTATGTCAATCTGCAAAGAGTACAGATGATCATGTTAGCAGTTGG AAAGAGAATGAAGAGAGATCAACCAGCTTTCACTCCTAGTGGAATATTAACTCCTCATGCCTTGGGTTCAAGAAA TTCACCAGGTTCTCAAGTAGCCAGTAATCCGAGACAAGCAGCCTATGAAATGAGGATGCAGAATAACTCTAGTCC TTCGATATCTCCTAATACGAGTTTCACATCTGATGGCTCCCCGTCTCCATTAGGAGGAATTAAGCGAAAAGCAGA GAACAAATTTGATGTGGATGCAGCTGATGAGAAATTCCGTCGGAAAGTTGTGCAGTCGTACGTTGAAGGACTTTG CTGGGTTCTTAGATATTATTACCAGGGCTGTGCTTCCTGGAAGTGGTATTATCCATTTCATTATGCACCATTTGC TTCAGACTTTGAAGGCATTGCAGACATGCCATCTGATTTTGAGAAGGGTACGAAACCGTTTAAACCACTAGAACA ACTTATGGGGGTATTTCCAGCTGCAAGTGGTAATTTTCTACCTCCATCATGGCGGAAGCTCATGAGTGATCCTGA TTCTAGTATAATTGACTTCTATCCTGAAGATTTTGCTATTGATTTGAATGGGAAGAAATATGCATGGCAAGGTGT TGCTCTCTTGCCATTCGTGGATGAGCGAAGGCTACGAGCTGCCCTAGAAGAGGTATACCCAGACCTCACTCCAGA AGAGACCAGAAGAAACAGCCTTGGAGGTGATGTCTTATTTGTGGGGAAACATCACCCACTCCATGACTTCATTTT AGAGCTGTACCAGACAGGTTCCACAGAGCCAGTGGAGGTACCCCCTGAACTATGTCATGGGATTCAAGGAAAGTT TTCTTTGGATGAAGAGCCATTCTTCCAGATCAAATAGTATGTTCTCCTGTTCCTATGTTAAGGGATCTGACACA GAACACTGTAGTCAGTATTAATTTTAAAGACCCACAGTTTGCTGAAGATTACATTTTTAAAGCTGTAATGCTTCC AGGAGCAAGAAAGCCAGCAGCAGTACTGAAACCTAGTGACTGGGAAAAATCCAGCAATGGACGGCAGTGGAAGCC TCAGCTTGGCTTTAACCGTGACCGGAGGCCTGTGCACCTGGATCAGGCAGCCTTCAGGACTTTGGGCCATGTGAT GCCAAGAGGCTCAGGAACTGGCATTTACAGCAATGCTGCACCACCACCTGTGACTTACCAGGGAAACTTATACAG GCCGCTTTTGAGAGGACAAGCCCAGATTCCAAAACTTATGTCAAATATGAGGCCCCAGGATTCCTGGCGAGGTCC TCCTCCCCTTTTCCAGCAGCAAAGGTTTGACAGAGGCGTTGGGGCTGAACCTCTGCTCCCATGGAACCGGATGCT GCAAACCCAGAATGCAGCCTTCCAGCCAAACCAGTACCAGATGCTAGCTGGGCCTGGTGGGTATCCACCCAGACG ATTTCTTTCTCAAGTAGTTTTTTAATAAAACTACAGTACTTTGTGTATTTCTTTAACTGTGTATATTTCTAC CTTATAAAACACATTTGATGGAATAGGAGTACTGGTTTTTCATAATGGTTAAAAATGAAACCAGCTGTGGATTTC GCTGGAACCTCAGCAAACTAGAGTATATATTGTTCAGTATTTCTTTGGAAACATTTCATTAATGTACTTGTCTTA 

## 1586/2682 FIGURE 1441

MGVPAFFRWLSRKYPSIIVNCVEEKPKECNGVKIPVDASKPNPNDVEFDNLYLDMNGIIHPCTHPEDKPAPKNED EMMVAIFEYIDRLFSIVRPRRLLYMAIDGVAPRAKMNQQRSRRFRASKEGMEAAVEKQRVREEILAKGGFLPPEE IKERFDSNCITPGTEFMDNLAKCLRYYIADRLNNDPGWKNLTVILSDASAPGEGEHKIMDYIRRQRAQPNHDPNT HHCLCGADADLIMLGLATHEPNFTIIREEFKPNKPKPCGLCNQFGHEVKDCEGLPREKKGKHDELADSLPCAEGE FIFLRLNVLREYLERELTMASLPFTFDVERSIDDWVFMCFFVGNDFLPHLPSLEIRENAIDRLVNIYKNVVHKTG GYLTESGYVNLQRVQMIMLAVGEVEDSIFKKRKDDEDSFRRRQKEKRKMKRDQPAFTPSGILTPHALGSRNSPG SQVASNPRQAAYEMRMQNNSSPSISPNTSFTSDGSPSPLGGIKRKAEDSDSEPEPEDNVRLWEAGWKQRYYKNKF DVDAADEKFRRKVVQSYVEGLCWVLRYYYQGCASWKWYYPFHYAPFASDFEGIADMPSDFEKGTKPFKPLEQLMG VFPAASGNFLPPSWRKLMSDPDSSIIDFYPEDFAIDLNGKKYAWQGVALLPFVDERRLRAALEEVYPDLTPEETR RNSLGGDVLFVGKHHPLHDFILELYQTGSTEPVEVPPELCHGIQGKFSLDEEAILPDQIVCSPVPMLRDLTQNTV VSINFKDPQFAEDYIFKAVMLPGARKPAAVLKPSDWEKSSNGRQWKPQLGFNRDRRPVHLDQAAFRTLGHVMPRG SGTGIYSNAAPPPVTYQGNLYRPLLRGQAQIPKLMSNMRPQDSWRGPPPLFQQQRFDRGVGAEPLLPWNRMLQTQ NAAFQPNQYQMLAGPGGYPRRDDRGGRQGYPREGRKYPLPPPSGRYNWN

#### 1587/2682 FIGURE 1442A

ACCAAGGCTCGGGTTATGTATGATTTTGCTGCTGAACCTGGAAATAATGAACTGACGGTTAATGAAGGAGAAATC CCCACAGACTACGTTGAAATTTTACCCAGTGATGGAAAAGATCAATTTTCTTGTGGAAATTCAGTGGCTGACCAA GCCTTCCTTGATTCTCTCTCAGCCAGCACAGCTCAGGCCAGTTCGTCGGCTGCCAGCAACAATCACCAGGTTGGC AGTGGCAATGACCCCTGGTCAGCCTGGAGTGCCTCCAAATCTGGGAACTGGGAAAGCTCAGAAGGCTGGGGGGCC CAGCCAGAGGGGGCTGGAGCCCAAAGAAACACAAACACTCCCAACAACTGGGACACTGCCTTCGGCCACCCCCAG GCCTACCAAGGACCAGCAACTGGTGATGATGATGACTGGGATGAAGACTGGGATGGGCCCAAATCCTCTTCCTAC TTTAAGGATTCAGAGTCAGCTGATGCAGGCGGCGCTCAGCGAGGAAACAGTCGTGCTAGTTCCTCATCCATGAAA ATTCCCCTTAACAAATTTCCTGGATTTGCGAAACCTGGCACGGAACAGTATTTGTTGGCCAAACAACTAGCAAAA CCCAAAGAGAAAATTCCCATCATTGTTGGAGATTATGGCCCAATGTGGGTTTATCCTACCTCTACTTTTGACTGT GTGGTAGCAGATCCCAGGAAAGGCTCCAAAATGTATGGTCTAAAGAGCTACATCGAATATCAGCTAACACCTACT AACACTAATCGATCTGTAAACCACAGGTATAAGCACTTTGACTGGTTATATGAGCGTCTCCTGGTTAAGTTTGGG TCAGCCATTCCAATCCCTTCTCCAGACAAACAAGTCACAGGCCGCTTTGAAGAGGGAATTTATCAAAATGCGC ATGGAGAGACTTCAGGCCTGGATGACCAGGATGTGTCGCCATCCAGTAATCTCAGAAAGTGAAGTTTTCCAGCAG  ${\tt ATGATATTTTCCACCATGGAACCAGAGGCACCTGACTTGGACTTAGTAGAAATAGAGCAGAAGTGCGAGGCTGTG}$ GGGAAGTTCACCAAGGCCATGGATGACGGCGTGAAGGAGCTGCTGACGGTGGGGCAGGAGCACTGGAAGCGCTGC  ${\tt ACGGGCCCATTACCCAAGGAATATCAGAAGATAGGAAAGGCCTTGCAGAGTTTGGCCACAGTGTTCAGTTCCAGTTCCAGTTCCAGTTTCAGTTCCAGTTCCAGTTTCAGTTCCAGTTTCAGTTCCAGTTTCAGTTCCAGTTTCAGTTCCAGTTTCAGTTCCAGTTTCAGTTCCAGTTTCAGTTCCAGTTTCAGTTCCAGTTTCAGTTCCAGTTTCAGTTTCAGTTCCAGTTTCAGTTCCAGTTTCAGTTTCAGTTCCAGTTTCAGTTCCAGTTTCAGTTCCAGTTTCAGTTCCAGTTTCAGTTCAGTTCCAGTTTCAGTTCCAGTTTCAGTTCCAGTTTCAGTTCCAGTTTCAGTTCCAGTTTCAGTTCAGTTCCAGTTTCAGTTCCAGTTTCAGTTCCAGTTTCAGTTCCAGTTTCAGTTCCAGTTTCAGTTCCAGTTCCAGTTTCAGTTCCAGTTTCAGTTCAGTTCAG$ GGCTATCAAGGTGAAACAGATCTCAATGATGCAATAACAGAAGCAGGAAAGACTTATGAAGAAATTGCCAGTCTC GTGGCAGAACAGCCAAAGAAGATCTCCATTTCCTGATGGAATGTAATCACGAGTATAAAGGTTTTCTTGGCTGC TTCCCTGACATCATTGGCACTCACAAGGGAGCAATAGAAAAAGTGAAAGAAGTGACAAACTAGTTGCAACAAGT AAAATCACCCTACAAGACAAACAGAACATGGTGAAGAGAGTCAGCATCATGTCTTACGCGTTGCAAGCTGAGATG AATCACTTTCACAGTAACCGGATCTATGATTACAACAGTGTCATCCGCCTGTACCTGGAGCAGCAAGTGCAATTT TACGAAACGATTGCAGAAAAGCTGAGGCAGGCCCTCAGCCGCTTTCCAGTGATGTAGGACAGAACGGGCCTTGAA GAGAATGCCGCGTGCTTTCTCCTGACTTGGGGCAATGCAATTCAAAACTTTTTTCCCCTATTATTCAGAAAAAAA TTAGGGATGGTCTTTTGTTCATTTCCGCATCCATTATTTAAACCAGTGGAAATTGTCTCTATTTTTGGAAAGTAC TTAAAAGTTACCAGAATTTTCAATGGAAAATGAGGGGTTTCTCCCCACTGATATTTTACATAGAGTCATAATTTA TATGTCTTATAAATTATAAGTCTTATATAATTTATAAGTCTCCCACAATCTTCCAGTTCTTACCCAGTGTCAGAT AATTAATTACTATTCTTAAAAACATGAACTATGCCAGAATAAAAATATCTATGTTTGTATATTTTTAT AACTCCTTTCAGTCCTCTGGGGCTCCTGTCATTGAGGGAAGTCGTTACGCCTTTCACTGCCACAGTTACAGCTCA AGTGCTTACACTTCAAGAGGGAGGACGCTGGGGGGCCCCTGGGGTGACTAGTGCCATCGTGGGTGTGTGGGCAGGT GGGCCATCCCATGTCCCTCCAGGGGACCCCACAGCCTGGCAGATGAGCAGATACCCCTGGCCACCCCATGTCCTCA GCGACATTTCTGATGTGCTGCTCTTATGTGAGGACCAGTGCTTTCTCTCTTTTGCACTTCCTACTTAATCTTGGTT AAGGCATGTTTTATGCCATGAAGAATACATTAGAAGAATTGAGGGACTTTGTAGAGAATTTTGTGGCTTTGGTCC GACGGGTGAGTGGCTGTGCGGAGGCCTGTGTTCGGGAGGGCCTGGGGGAAGGAGGGCACCCAGCACCCCGGCGTC TCTGGCCCTTTCTTATTCTTTGGCTCCTCATCCACCGTGATGAGAAGCGCTGCTGTGGCCACGGCACACTGCTTG GCTTGGGTGGCGGGTTCATGGCCAGTTGGTGTCATCAGCAAAGAGAAAAAGCACAGGTTAGCTCCCCATTAGATG GAAAAGTGTAGGGACTGAGAAGGGCTGCAGCCTCAGCAGTGTACAGAGTCCCCGGCGCTCTGAGGTTGGAGAGAA AGAACAGACCAGCGCCCTTCCTGACTACATCCGAAACTTCACACAGGGTGTTTCTGAGCACCAGCACTTCCAGCG CTTCACTTAACGGCATAAAGCAAAACAGGACCTTGGCACACCGTCAGCTCGAACTCAACACTGGCAGCCACCGTC ACCTTAATAATTACGGGAAATGGAAAGTCTGGGCCAGCATCAATAAAATGACACCAAAAATAAGTAGATGAAATC AAATGAATATGAGAACATCTTGTTCTTCAATATCACGGGTTTTTGTTAATGTTTCATAAGTAATTCTCCCCACTT GATTTTTCTTCTATAAAATCCCATAGAACAATGTTTATGCTATAGCCATTTAATATATGTACAAATTGTAAAGAA 

## 1588/2682 FIGURE 1442B

#### 1589/2682 FIGURE 1443

MATKARVMYDFAAEPGNNELTVNEGEIITITNPDVGGGWLEGRNIKGERGLVPTDYVEILPSDGKDQFSCGNSVA
DQAFLDSLSASTAQASSSAASNNHQVGSGNDPWSAWSASKSGNWESSEGWGAQPEGAGAQRNTNTPNNWDTAFGH
PQAYQGPATGDDDDWDEDWDGPKSSSYFKDSESADAGGAQRGNSRASSSSMKIPLNKFPGFAKPGTEQYLLAKQL
AKPKEKIPIIVGDYGPMWVYPTSTFDCVVADPRKGSKMYGLKSYIEYQLTPTNTNRSVNHRYKHFDWLYERLLVK
FGSAIPIPSLPDKQVTGRFEEEFIKMRMERLQAWMTRMCRHPVISESEVFQQFLNFRDEKEWKTGKRKAERDELA
GVMIFSTMEPEAPDLDLVEIEQKCEAVGKFTKAMDDGVKELLTVGQEHWKRCTGPLPKEYQKIGKALQSLATVFS
SSGYQGETDLNDAITEAGKTYEEIASLVAEQPKKDLHFLMECNHEYKGFLGCFPDIIGTHKGAIEKVKESDKLVA
TSKITLQDKQNMVKRVSIMSYALQAEMNHFHSNRIYDYNSVIRLYLEQQVQFYETIAEKLRQALSRFPVM

#### 1590/2682 FIGURE 1444A

ACCAAGGCTCGGGTTATGTATGATTTTGCTGCTGAACCTGGAAATAATGAACTGACGGTTAATGAAGGAGAAATC CCCACAGACTACGTTGAAATTTTACCCAGTGATGGAAAAGATCAATTTTCTTGTGGAAATTCAGTGGCTGACCAA GCCTTCCTTGATTCTCTCTCAGCCAGCACAGCTCAGGCCAGTTCGTCGGCTGCCAGCAACAATCACCAGGTTGGC AGTGGCAATGACCCCTGGTCAGCCTGGAGTGCCTCCAAATCTGGGAACTGGGAAAGCTCAGAAGGCTGGGGGGCCC CAGCCAGAGGGGGCTGGAGCCCAAAGAAACACAAACACTCCCAACAACTGGGACACTGCCTTCGGCCACCCCCAG GCCTACCAAGGACCAGCAACTGGTGATGATGACTGGGATGAAGACTGGGATGGGCCCAAATCCTCTTCCTAC TTTAAGGATTCAGAGTCAGCTGATGCAGGCGGCGCTCAGCGAGGAAACAGTCGTGCTAGTTCCTCATCCATGAAA ATTCCCCTTAACAAATTTCCTGGATTTGCGAAACCTGGCACGGAACAGTATTTGTTGGCCAAACAACTAGCAAAA CCCAAAGAGAAAATTCCCATCATTGTTGGAGATTATGGCCCAATGTGGGTTTATCCTACCTCTACTTTTGACTGT GTGGTAGCAGATCCCAGGAAAGGCTCCAAAATGTATGGTCTAAAGAGCTACATCGAATATCAGCTAACACCTACT **AACACTAATCGATCTGTAAACCACAGGTATAAGCACTTTGACTGGTTATATGAGCGTCTCCTGGTTAAGTTTGGG** TCAGCCATTCCAATCCCTTCTCTCCAGACAAACAAGTCACAGGCCGCTTTGAAGAGGGAATTTATCAAAATGCGC ATGGAGAGACTTCAGGCCTGGATGACCAGGATGTGTCGCCATCCAGTAATCTCAGAAAGTGAAGTTTTCCAGCAG ATGATATTTTCCACCATGGAACCAGAGGCACCTGACTTGGACTTAGTAGAAATAGAGCAGAAGTGCGAGGCTGTG GGGAAGTTCACCAAGGCCATGGATGACGGCGTGAAGGAGCTGCTGACGGTGGGGCAGGAGCACTGGAAGCGCTGC ACGGGCCCATTACCCAAGGAATATCAGAAGATAGGAAAGGCCTTGCAGAGTTTGGCCACAGTGTTCAGTTCCAGT GGCTATCAAGGTGAAACAGATCTCAATGATGCAATAACAGAAGCAGGAAAGACTTATGAAGAAATTGCCAGTCTC GTGGCAGAACAGCCAAAGAAAGATCTCCATTTCCTGATGGAATGTAATCACGAGTATAAAGGTTTTCTTGGCTGC TTCCCTGACATCATTGGCACTCACAAGGGAGCAATAGAAAAAGTGAAAGATGACAAACTAGTTGCAACAAGT AAAATCACCCTACAAGACAAACAGAACATGGTGAAGAGAGTCAGCATCATGTCTTACGCGTTGCAAGCTGAGATG AATCACTTTCACAGTAACCGGATCTATGATTACAACAGTGTCATCCGCCTGTACCTGGAGCAGCAAGTGCAATTT TACGAAACGATTGCAGAAAAGCTGAGGCAGGCCCTCAGCCGCTTTCCAGTGATG<u>TAC</u>GACAGAACGGGCCTTGAA GAGAATGCCGCGTGCTTTCTCCTGACTTGGGGCAATGCAATTCAAAACTTTTTTCCCCTATTATTCAGAAAAAAA TTAGGGATGGTCTTTTGTTCATTTCCGCATCCATTATTTAAACCAGTGGAAATTGTCTCTATTTTTGGAAAGTAC TTAAAAGTTACCAGAATTTTCAATGGAAAATGAGGGGTTTCTCCCCACTGATATTTTACATAGAGTCATAATTTA TATGTCTTATAAATTATAAGTCTTATATAATTTATAAGTCTCCCACAATCTTCCAGTTCTTACCCAGTGTCAGAT AATTAATTACTAATTACTTTCTTAAAAACATGAACTATGCCAGAATAAAAAATATCTATGTTTGTATATTTTTAT AACTCCTTTCAGTCCTCTGGGGCTCCTGTCATTGAGGGAAGTCGTTACGCCTTTCACTGCCACAGTTACAGCTCA AGTGCTTACACTTCAAGAGGGAGGACGCTGGGGGCCCCTGGGGTGACTAGTGCCATCGTGGGTGTGTGGGCAGGT GGGCCATCCCATGTCCCTCCAGGGGACCCCACAGCCTGGCAGATGAGCAGATACCCCTGGCCACCCATGTCCTCA GCGACATTTCTGATGTGCTGCTCTTATGTGAGGACCAGTGCTTTCTCTCTTTGCACTTCCTTAATCTTGGTT AAGGCATGTTTTATGCCATGAAGAATACATTAGAAGAATTGAGGGACTTTGTAGAGAATTTTGTGGCTTTGGTCC GACGGGTGAGTGGCTGTGCGGAGGCCTGTGTTCGGGAGGGCCTGGGGGAAGGAGGACCCAGCACCCCGGCGTC TCTGGCCCTTTCTTATTCTTTGGCTCCTCATCCACCGTGATGAGAAGCGCTGCTGTGGCCACGGCACACTGCTTG GCTTGGGTGGCGGGTTCATGGCCAGTTGGTGTCATCAGCAAAGAGAAAAAGCACAGGTTAGCTCCCCATTAGATG GAAAAGTGTAGGGACTGAGAAGGGCTGCAGCCTCAGCAGTGTACAGAGTCCCCGGCGCTCTGAGGTTGGAGAGAA AGAACAGACCAGCGCCCTTCCTGACTACATCCGAAACTTCACACAGGGTGTTTCTGAGCACCAGCACTTCCAGCG CTTCACTTAACGGCATAAAGCAAAACAGGACCTTGGCACACCGTCAGCTCGAACTCAACACTGGCAGCCACCGTC ACCTTAATAATTACGGGAAATGGAAAGTCTGGGCCAGCATCAATAAAATGACACCAAAAATAAGTAGATGAAATC AAATGAATATGAGAACATCTTGTTCTTCAATATCACGGGTTTTTGTTAATGTTTCATAAGTAATTCTCCCCACTT GATTTTTCTTCTATAAAATCCCATAGAACAATGTTTATGCTATAGCCATTTAATATATGTACAAATTGTAAAGAA 

#### 1591/2682 FIGURE 1444B

### 1592/2682 FIGURE 1445

MATKARVMYDFAAEPGNNELTVNEGEIITITNPDVGGGWLEGRNIKGERGLVPTDYVEILPSDGKDQFSCGNSVA
DQAFLDSLSASTAQASSSAASNNHQVGSGNDPWSAWSASKSGNWESSEGWGAQPEGAGAQRNTNTPNNWDTAFGH
PQAYQGPATGDDDDWDEDWDGPKSSSYFKDSESADAGGAQRGNSRASSSSMKIPLNKFPGFAKPGTEQYLLAKQL
AKPKEKIPIIVGDYGPMWVYPTSTFDCVVADPRKGSKMYGLKSYIEYQLTPTNTNRSVNHRYKHFDWLYERLLVK
FGSAIPIPSLPDKQVTGRFEEEFIKMRMERLQAWMTRMCRHPVISESEVFQQFLNFRDEKEWKTGKRKAERDELA
GVMIFSTMEPEAPDLDLVEIEQKCEAVGKFTKAMDDGVKELLTVGQEHWKRCTGPLPKEYQKIGKALQSLATVFS
SSGYQGETDLNDAITEAGKTYEEIASLVAEQPKKDLHFLMECNHEYKGFLGCFPDIIGTHKGAIEKVKESDKLVA
TSKITLQDKQNMVKRVSIMSYALQAEMNHFHSNRIYDYNSVIRLYLEQQVQFYETIAEKLRQALSRFPVM

#### 1593/2682 FIGURE 1446

 $\mathtt{AGTTCGACACC}$ CGAAGAATTTGATGAACTATGTTTTGAATTTGGTCTGGAGCTTGATGAAATTACATCTGAGAAGGAAATAATAAG TAAAGAACAAGGTAATGTAAAGGCAGCAGGAGCCTCTGATGTTGTTCTTTACAAAATTGACGTCCCTGCCAATAG TAAACGGGTAATGCCTGATGGAAAAATCCAGAAATTGATTATCACAGAAGAGACAGCTAAGATACGTCCTTTTGC GGTAGCAGCTCTCCGTAATATAAAGTTTACTAAAGATCGATATGACAGCTTCATTGAACTTCAGGAGAAATT ACATCAGAATATTTGCAGGAAAAGAGCACTGGTTGCCATTGGTACCCATGATTTGGACACTTTGTCGGGCCCATT TACTTATACTGCAAAGCGTCCTTCAGATATCAAATTCAAGCCTCTAAATAAGACCAAGGAGTATACAGCCTGTGA AGTTATCTATGATAGCAATGGTGTCGTCCTTTCAATGCCTCCCATCATCAATGGGGATCATTCCAGAATAACAGT AAATACTAGAAATATTTTTATTGAATGCACGGGAACTGACTTTACTAAGGCAAAAATAGTTCTTGATATTATTGT CACCATGTTCAGTGAATATTGTGAGAATCAATTTACGGTCGAAGCTGCTGAAGTGGTTTTTCCTAATGGAAAATC ACATACCTTTCCAGAATTAGCTTACCGAAAGGAGATGGTGAGAGCTGACCTAATTAACAAAAAAGTTGGAATCAG AGAAACTCCAGAAAATCTTGCCAAACTTCTGACCAGGATGTATTTAAAATCAGAAGTCATAGGTGATGGGAATCA TTATGGATATAACAACATTCAGATGACTCTCCCGAAAACTTACACCATAGCTAATCAATTTCCTCTTAATAAGCT CACTGAACTTCTCCGACATGACATGGCAGCCGCTGGCTTCACTGAAGCACTTACCTTTGCCCTGTGCTCCCAAGA AGATATTGCTGATAAACTAGGTGTGGATATCTCTGCAACAAAGGCAGTCCACATAAGTAATCCTAAAACAGCTGA ATTTCAGGTGGCACGCACTACCCTTCTTCCTGGCCTCCTGAAGACCATAGCAGCAAATCGTAAGATGCCCCTTCC ACTGAAACTGTTTGAAATCTCTGACATTGTAATAAAAGATTCTAATACAGATGTAGGTGCAAAAAACTACAGACA GCTCGATGTGCCTCCTGGTGAAGACAAGGGGGGGATATGTGATCAAAGCATCAGAAGGGCCTGCTTTCTTCCCCGG GCGATGTGCAGAGATCTTTGCCAGGGTTCAAAGCGTCGGGAAGCTTGGGGTCCTTCATCCTGACGTTATCACCAA ATTTGAGCTGACCATGCCCTGCTCCCTAGAAATCAATATTGGACCCTTTTTG**TGA**AGATTGGTCTCTGTGGT GTGATTCTCTCCCAGGTGTCCCTTTCTCCTCCCCTAGTGTCCTTAAGTCCTCCACAGGGAACATCTATTTG GGCTTTGATGTTTAATAAAGTAGAAAGCACTGTCTGGCTGTGTGGGTAGAGACCATCCTTTCCCTGCATATTAGG CCAGCTTGTGCCATATACCAGTGTGTGTGTGTGTGTAAAGCTGCATTGTTGGGTAAAAGCCCCGTGGAGTGCTG GAGANATGCACTAGCAGAGTGCAGGATCTGTTCTGAAAGGCAGACGTGCTCCTCAGACATCAGAACATCACATTG GAACGGATTACTCCTGCATAACAAGATCCCATTTCTTTCCTTATTGATAAAACAAGATAATCGATGAGAATTCAT GTTGCATGAGTTCGAGATAACTGAGGGGTTTAGCTTTGATTTCTACATTTGACATGTATTCATCATTGAGAAAC ACTAAAATAACAATATTTTTAGAAAACGTTTAAGAATCAATTATGGTCCAACAATTATAGCTTCTGAGGTCAGTT TAAAGTGAAAGAAAATCTGTAATACAAGGATTCAAAATATGTGAGGGTGCATAGGTATTTTTTACTCTATCTGT GATACTCTAAGATAGAGTACATGCAACAAAGATCTGTTCTGCTGTAAGAGTTAAAATGGACAAGTATTGATATCA TTATAAAATCATGGTTTTAAATACTTAATTGAGCTACTAGTTTCTCTATTGTCCCAGGGAGATATTAGACCTCTC TTTTTCTGAAGCTAAGCTTCAGCCAATCCTCCTTGTTTTATATCCTAATTTCCTTTCTTACTTCAATCTAGAATT CTCCAGTAGGTACCATCTCTGGAAAAAAGCTGGGTCTCATGTTTGAGACAAGTTCCCAGGTACTATTGAAGTAAT **AAGAAATATGATAAAATATAATACTTTAAAGTCCCAGTAGAAATAGCTAACAAAGGCTGGGTGCGCTGTGGCTCA** TGCCTGTAATCCTAGCACTTTGGGAGGCTGAGGTGGGCAGATCACTTGAGGCCAATAGTTCGAGATCAGCCTGA'C CAACATGATGAAATGCCATCTCCACTAAAAATATAAAAATTAGCCAGGCATGGTGGTGTGGGCCTGCAGTCCCAG CTACCTGGGAGGCTGAGTCAGGAAAATCTCTTGAACCAGGAGGTGGACGTTGCAGTGATCCCAGATTGTGCCACT GCCCTCCAGCCTGGGTGACAGAGTGAGATTCTGTCTACAAAAA

## 1594/2682 FIGURE 1447

MPTVSVKRDLLFQALGRTYTDEEFDELCFEFGLELDEITSEKEIISKEQGNVKAAGASDVVLYKIDVPANRYDLL CLEGLVRGLQVFKERIKAPVYKRVMPDGKIQKLIITEETAKIRPFAVAAVLRNIKFTKDRYDSFIELQEKLHQNI CRKRALVAIGTHDLDTLSGPFTYTAKRPSDIKFKPLNKTKEYTACELMNIYKTDNHLKHYLHIIENKPLYPVIYD SNGVVLSMPPIINGDHSRITVNTRNIFIECTGTDFTKAKIVLDIIVTMFSEYCENQFTVEAAEVVFPNGKSHTFP ELAYRKEMVRADLINKKVGIRETPENLAKLLTRMYLKSEVIGDGNQIEIEIPPTRADIIHACDIVEDAAIAYGYN NIQMTLPKTYTIANQFPLNKLTELLRHDMAAAGFTEALTFALCSQEDIADKLGVDISATKAVHISNPKTAEFQVA RTTLLPGLLKTIAANRKMPLPLKLFEISDIVIKDSNTDVGAKNYRHLCAVYYNKNPGFEIIHGLLDRIMQLLDVP PGEDKGGYVIKASEGPAFFPGRCAEIFARVQSVGKLGVLHPDVITKFELTMPCSSLEINIGPFL

#### 1595/2682 FIGURE 1448

## 1596/2682 FIGURE 1449

MTTLRAFTCDDLFRFNNINLDPLTETYGIPFYLQYLAHWPEYFIVAEAPGGELMGYIMGKAEGSVAREEWHGHVT ALSVAPEFRRLGLAAKLMELLEEISERKGGFFVDLFVRVSNQVAVNMYKQLGYSVYRTVIEYYSASNGEPDEDAY DMRKALSRDTEKKSIIPLPHPVRPEDIE

#### 1597/2682 FIGURE 1450

ACGCGTCCGAGCTGGCTCAGGGCTCCGCTAGGCTCGGACGACCTGCTGAGCCTCCCAAACCGCTTCCATAAGGC TCTTTTGTTCTTTGCCAAAGTCGTCGTTGTAGTCTTTTTGCCCAAGGCTGTTGTGTTTTTAGAGGTGCTATCTCC AGTTCCTTGCACTCCTGTTAACAAGCACCTCAGCGAGAGCAGCAGCAGCAGCAGCAGCAGCAGAAGAGCCAGCGG GGTCGCCTAGTGTCATGACCAGGGCGGGAGATCACAACCGCCAGAGAGGATGCTGTGGATCCTTGGCCGACTACC TGTCTGTGTTTCTGGTAGAGCTCTATGGAAACAGCCTCCTTTTGACAGCAGTCTACGGGCTGGTGGTGGCAGGGT CTGTTCTGGTCCTGGGAGCCATCATCGGTGACTGGGTGACAAGAATGCTAGACTTAAAGTGGCCCAGACCTCGC TGGTGGTACAGAATGTTTCAGTCATCCTGTGTGGAATCATCCTGATGATGGTTTTCTTACATAAACATGAGCTTC TGACCATGTACCATGGATGGGTTCTCACTTCCTGCTATATCCTGATCATCACTATTGCAAATATTGCAAATTTGG CCAGTACTGCTACTGCAATCACAATCCAAAGGGATTGGATTGTTGTTGTTGCAGGAGAAGACAGAAGCAAACTAG CAAATATGAATGCCACAATACGAAGGATTGACCAGTTAACCAACATCTTAGCCCCCATGGCTGTTGGCCAGATTA TGACATTTGGCTCCCCAGTCATCGGCTGTGGCTTTATTTCGGGATGGAACTTGGTATCCATGTGCGTGGAGTACG TCCTGCTCTGGAAGGTTTACCAGAAAACCCCAGCTCTAGCTGTGAAAGCTGGTCTTAAAGAAGAGGGAAACTGAAT TGAAACAGCTGAATTTACACAAAGATACTGAGCCAAAACCCCTGGAGGGAACTCATCTAATGGGTGTGAAAGACT CTAACATCCATGAGCTTGAACATGAGCAAGAGCCTACTTGTGCCTCCCAGATGGCTGAGCCCTTCCGTACCTTCC TCCTGGGCTTTGACTGCATCACCACAGGGTACGCCTACACTCAGGGACTGAGTGGTTCCATCCTCAGTATTTTGA TGGGAGCATCAGCTATAACTGGAATAATGGGAACTGTAGCTTTTACTTGGCTACGTCGAAAATGTGGTTTGGTTC CCAAGATACCTGAAATTACAACTGAAATATACATGTCTAATGGGTCTAATTCTGCTAATATTGTCCCGGAGACAA GTCCTGAATCTGTGCCCATAATCTCTGTCAGTCTGCTGTTTGCAGGCGTCATTGCTGCTAGAATCGGTCTTTGGT CCTTTGATTTAACTGTGACACAGTTGCTGCAAGAAAATGTAATTGAATCTGAAAGAGGCATTATAAATGGTGTAC AGAACTCCATGAACTATCTTCTTGATCTTCTGCATTTCATCATGGTCATCCTGGCTCCAAATCCTGAAGCTTTTG GCTTGCTCGTATTGATTTCAGTCTCCTTTGTGGCAATGGGCCACATTATGTATTTCCGATTTGCCCAAAATACTC  $\verb"TT$\underline{\textbf{TGA}}$ \texttt{GACAGTTTAACTGTTGCTATCCTGTTACTAGATTATATAGAGCACATGTGCTTATTTTGTACTGCAGAAT$ TCCAATAAATGGCTGGGTGTTTTTGCTCTGTTTTTACCACAGCTGTGCCTTGAGAACTAAAAGCTGTTTAGGAAAC GTTTAAATACGGAGACTATAATGATAACACTGAATTCCCCTATTTCTCATGAGTAGATACAATCTTACGTAAAAG AGTGGTTAGTCACGTGAATTCAGTTATCATTTGACAGATTCTTATCTGTACTAGAATTCAGATATGTCAGTTTTC TGCAAAACTCACTCTTGTTCAAGACTAGCTAATTTATTTTTTTGCATCTTAGTTATTTTTAAAAACAAATTCTTC AAGTATGAAGACTAAATTTTGATAACTAATATTATCCTTATTGATCCTATTGATCTTAAGGTATTTACATGTATG TGGAAAAACAAAACACTTAACTAGAATTCTCTAATAAGGTTTATGGTTTAGCTTAAAGAGCACCTTTGTATTTTT ATTATCAGATGGGGCAACATATTGTATGAAGCATATGTAGCACTTCACAGCATGGTTATCATGTAAGCTGCAGGT AGAAGCAAAGCTGTAAAGTAGATTTATCACACAATGACTGCATACAGACTTCAAATATGTCAATAGTTTGGTCAT AGAACCTAGAAGCCAAAAGCCACACAGAAGGGCAAGAATCCCAATTTAACTCATGTTATCATCATTAGTGATCTG TGTTGTAGAACATGAGGGTGTAAGCCTTCAGCCTGGCAAGTTACATGTAGAAAGCCCACACTTGTGAAGGTTTTG TTTTACAAATCACTTGATTTAACACACTCAGGTAGAATATTTTTATTTTTACTGTTTTATACCCAGAAGTTATTT GTTTGTATATTTTTAAAAAATTGTTTTAAAAGTCAGTTTGCAACATGTCTGTACCAAGATGGTACTTTGCCTTA TTGCTTCATCTTTCTACAGTATGACATAATGATTTGCTATGTTGTAAAAATCTTTGTAAAAAATTTCTATATAAAA ATATTTTGAAAATCTTAAAAAAAAAAAAAAAAAAA

#### 1598/2682 FIGURE 1451

MTRAGDHNRQRGCCGSLADYLTSAKFLLYLGHSLSTWGDRMWHFAVSVFLVELYGNSLLLTAVYGLVVAGSVLVL
GAIIGDWVDKNARLKVAQTSLVVQNVSVILCGIILMMVFLHKHELLTMYHGWVLTSCYILIITIANIANLASTAT
AITIQRDWIVVVAGEDRSKLANMNATIRRIDQLTNILAPMAVGQIMTFGSPVIGCGFISGWNLVSMCVEYVLLWK
VYQKTPALAVKAGLKEEETELKQLNLHKDTEPKPLEGTHLMGVKDSNIHELEHEQEPTCASQMAEPFRTFRDGWV
SYYNQPVFLAGMGLAFLYMTVLGFDCITTGYAYTQGLSGSILSILMGASAITGIMGTVAFTWLRRKCGLVRTGLI
SGLAQLSCLILCVISVFMPGSPLDLSVSPFEDIRSRFIQGESITPTKIPEITTEIYMSNGSNSANIVPETSPESV
PIISVSLLFAGVIAARIGLWSFDLTVTQLLQENVIESERGIINGVQNSMNYLLDLLHFIMVILAPNPEAFGLLVL
ISVSFVAMGHIMYFRFAQNTLGNKLFACGPDAKEVRKENQANTSVV

#### 1599/2682 FIGURE 1452

GGAACAAAAGCTGGAGCTCCACCGCGGTGGCGGCCGCTCTAGAACTAGTGGATCCCCCGGGCTGCAGGAATTCGG CACGAGCAGAAGAGGGGGCTAGCTAGCTGTCTCTGCGGACCAGGGGAGACCCCGCGCCCCCCGGTGTGAGGCGG CCTCACAGGGCCGGGTGGGCTGGCGAGCCGACGCGGCGGGGGAGGAGCTGTGAGGAGTGTGTGGAACAGGACCC  $\tt GGGACAGAGGAACC {\color{red} {\bf ATG}} GCTCCGCAGAACCTGAGCACCTTTTGCCTGTTGCTGCTATACCTCATCGGGGCGGTGA$ TTGCCGGACGAGATTTCTATAAGATCTTGGGGGTGCCTCGAAGTGCCTCTATAAAGGATATTAAAAAGGCCTATA GGAAACTAGCCCTGCAGCTTCATCCCGACCGGAACCCTGATGATCCACAAGCCCAGGAGAAATTCCAGGATCTGG GTGCTGCTTATGAGGTTCTGTCAGATAGTGAGAAACGGAAACAGTACGATACTTATGGTGAAGAAGGATTAAAAG ATGGTCATCAGAGCTCCCATGGAGACATTTTTTCACACTTCTTTGGGGATTTTGGTTTCATGTTTGGAGGAACCC CTCGTCAGCAAGACAGAAATATTCCAAGAGGAAGTGATATTATTGTAGATCTAGAAGTCACTTTGGAAGAAGTAT GTCGGCAAGAGATGCCGACCACCCAGCTGGGCCCTGGGCGCTTCCAAATGACCCAGGAGGTGGTCTGCGACGAAT GCCCTAATGTCAAACTAGTGAATGAAGAACGAACGCTGGAAGTAGAAATAGAGCCTGGGGTGAGAGACGGCATGG AGTACCCCTTTATTGGAGAAGGTGAGCCTCACGTGGATGGGGAGCCTGGAGATTTACGGTTCCGAATCAAAGTTG TCAAGCACCCAATATTTGAAAGGAGAGAGATGATTTGTACACAAATGTGACAATCTCATTAGTTGAGTCACTGG TTGGCTTTGAGATGGATATTACTCACTTGGATGGTCACAAGGTACATATTTCCCGGGATAAGATCACCAGGCCAG GAGCGAAGCTATGGAAGAAAGGGGAAGGGCTCCCCAACTTTGACAACAACAATATCAAGGGCTCTTTGATAATCA CTTTTGATGTGGATTTTCCAAAAGAACAGTTAACAGAGGGAAGCGAGAAGGTATCAAACAGCTACTGAAACAAG GGTCAGTGCAGAAGGTATACAATGGACTGCAAGGATAT**TGA**GAGTGAATAAAATTGGACTTTGTTTAAAATAAGT TTAATTTTTTTATCTAATGATCATCATGAAATGAATAAGAGGGCTTAAGAATTTGTCCATTTGCATTCGGAAAAG AATGACCAGCAAAAGGTTTACTAATACGTCTCCCTTTGGGGATTTAATGTCTGGTGCTGCCGCCTGAGTTTCAAG AATTAAAGCTGCAAGAGGACTCCAGGAGCAAAAGAAACACAATATAGAGGGTTGGAGTTGTTAGCAATTTCATTC AAAATGCCAACTGGAGAAGTCTGTTTTTAAATACATTTTGTTGTTATTTTT

### 1600/2682 FIGURE 1453

MAPQNLSTFCLLLLYLIGAVIAGRDFYKILGVPRSASIKDIKKAYRKLALQLHPDRNPDDPQAQEKFQDLGAAYE VLSDSEKRKQYDTYGEEGLKDGHQSSHGDIFSHFFGDFGFMFGGTPRQQDRNIPRGSDIIVDLEVTLEEVYAGNF VEVVRNKPVARQAPGKRKCNCRQEMRTTQLGPGRFQMTQEVVCDECPNVKLVNEERTLEVEIEPGVRDGMEYPFI GEGEPHVDGEPGDLRFRIKVVKHPIFERRGDDLYTNVTISLVESLVGFEMDITHLDGHKVHISRDKITRPGAKLW KKGEGLPNFDNNNIKGSLIITFDVDFPKEQLTEEAREGIKQLLKQGSVQKVYNGLQGY

#### 1601/2682 FIGURE 1454A

GCGCGAGTTGCTGCTAACGCTCCTCCAGCTTCCCACCCCCGCCGCCGCCGCCGCCGGTACCAACGGGTGG TCTCGCCGAGGGAGCTGTCGTGCCTCGTGGTCCCGGGACTGCAGTGGTGTGCGCTCTCGGCGCGTGGCGCTAGGC ATGGCGATGGATCAAGTAAACGCGCTGTGCGAGCAGCTGGTGAAAGCGGTGACGGTCATGATGGACCCCAACTCC ACCCAGCGCTACCGGCTGGAAGCCCTCAAGTTTTGTGAGGAGTTTAAAGAAAAGTGTCCTATCTGTGTCCCCTGT GGCTTGAGGTTGGCTGAGAAAACACAAGTTGCCATCGTCAGACATTTTGGCCTTCAGATCCTGGAACACGTTGTC AAGTTTCGGTGGAACGGCATGTCTCGATTGGAGAAGGTGTATCTGAAGAACAGTGTCATGGAGCTGATTGCAAAT GGAACATTGAACATTTTGGAAGAGGAGAACCATATTAAAGATGCTCTGTCTCGAATTGTAGTGGAAATGATCAAG CGAGAGTGGCCACAGCATTGGCCTGACATGCTAATAGAATTGGACACTCTTTCCAAACAAGGGGAAACACAGACA GAATTGGTGATGTTTATCCTTTTGCGACTGGCAGAGGATGTAGTGACTTTTCAGACACTTCCCCCTCAAAGAAGA GCAGCACTGAATACTCTAGCAGGCTATATTGACTGGGTGTCTATGAGTCACATCACTGCTGAAAACTGTAAACTC CTGGAGATACTGTGTTTGCTGTTGAATGAACAGGAACTTCAGTTGGGAGCCGCTGAGTGTCTTCTCATTGCAGTC AGCAGAAAAGGCAAGTTGGAAGACCGGAAGCCCTTGATGGTCTTATTTGGAGATGTTGCCATGCATTATATACTC TCCGCCGCACAGACTGCTGATGGAGGAGGTTTGGTAGAAAAACACTACGTCTTTCTGAAGAGGCTCTGTCAGGTG TTGTGTGCGCTGGGCAATCAGCTGTGTGCATTGCTGGGTGCAGATTCTGATGTAGAAACACCATCAAACTTTGGA AAATACCTGGAATCTTTTCTTGCTTTCACAACCCATCCAAGTCAGTTTCTACGCTCTTCAACTCAGATGACTTGG GGAGCCCTCTTCAGGCATGAAATCCTGTCCCGTGATCCTTTGCTATTAGCAATAATACCAAAATATCTTCGTGCT TTTGATAGCGATGAGGACTTCAATGCTTTCTTCAACTCCTCCCGAGCACAACAAGGAGGTGATGAGGTTGGCA TGTCGTTTGGATCCCAAAACTAGCTTCCAGATGGCTGGGGAGTGGCTAAAGTATCAACTATCAACTTTTCTTGAT GTGCAGTGGGAAGCCATGACTCTTTTTTTGGAAAGTGTTATCACCCAGATGTTTCGAACACTAAATAGAGAAGAA ATTCCTGTTAATGATGGAATAGAGCTATTGCAGATGGTTCTGAACTTTGATACCAAGGATCCCCTCATCCTGTCC TGCGTCCTTACTAATGTCTCTGCACTCTTTCCATTTGTCACCTACAGACCAGAGTTCCTGCCCCAGGTCTTCTCT AAGCTATTTTCATCTGTCACTTTTGAAACTGTTGAAGAAAGTAAGGCCCCCAGAACCCGGGCAGTGAGGAATGTG AGGAGGCATGCTTGTTCCTCCATCATCAAGATGTGTCGTGACTACCCCCAGCTTGTGCTGCCCAATTTTGACATG CTTTATAACCATGTGAAGCAACTCCTCTCCAATGAGCTACTCCTGACACAAATGGAGAAGTGTGCCCTCATGGAA GCCCTGGTTCTCATTAGCAACCAATTTAAGAACTACGAGCGTCAGAAGGTGTTCCTAGAGGAGCTGATGGCACCA GTGGCCAGCATCTGGCTTTCTCAAGACATGCACAGAGTGCTGTCAGATGTTGATGCTTTCATTGTGTATGTGGGT ACAGATCAGAAGAGCTGTGACCCAGGCCTGGAGGATCCGTGTGGCTTAAACCGTGCACGAATGAGCTTTTGTGTA TACAGCATTCTGGGTGTGAAACGAACTTGCTGGCCCACTGACCTAGAAGAGGCCAAAGCTGGGGGATTTGTG GTGGGTTATACATCCAGTGGAAATCCAATCTTCCGTAACCCCTGCACAGAGCAGATTCTGAAACTTCTTGACAAT TTGCTTGCGCTTATAAGAACCCACAATACATTATATGCACCAGAAATGCTAGCCAAAATGGCAGAGCCTTTCACC AAGGCTCTGGATATGCTTGACGCGGAAAAATCTGCTATATTAGGATTACCTCAACCTCTTTGGAACTCAATGAC TCTCCTGTCTTCAAAACCGTCTTGGAAAGAATGCAGCGTTTCTTCTCTACCCTCTATGAAAACTGTTTTCATATC GCCTTTGTCAACTTGAACAATATTCCTGACTACCGACTCAGACCCATGCTTCGTGTCTTTGTAAAGCCTCTGGTG AGGCTTTCTCAGAAATGGCAAGTTATCAACCAAAGGAGCCTGCTGTGTGGAGAAGATGAGGCTGCAGATGAAAAC CCAGAGTCTCAAGAGATGCTGGAGGAGCAACTGGTGAGGATGTTAACCCGAGAAGTCATGGACCTAATCACGGTT TGCTGTGTTTCAAAGAAGGGTGCTGACCACAGTAGTGCTCCCCCAGCAGATGGAGACGATGAAGAAATGATGGCC ACAGAGGTCACCCCTCAGCTATGGCAGAGCTTACAGACCTGGGCAAATGTCTGATGAAGCATGAGGATGTTTGT CTCTGCTGGCCTCTCCTCAAACAAGTGCTGTCAGGGACACTGCTCGCAGATGCAGTTACGTGGCTTTTCACCAGT GTGCTGAAAGGCTTACAGATGCACGGGCAGCACGACGGGTGCATGGCTTCCCTGGTCCATCTGGCCTTCCAGATA TACGAGGCACTGCGCCCCAGGTACCTGGAGATAAGAGCTGTAATGGAGCAAATCCCTGAAATACAGAAGGACTCA CTGGACCAGTTTGACTGCAAGCTTTTAAACCCCTCCCTGCAGAAAGTGGCTGACAAGCGCCGAAAGGACCAATTC

#### 1602/2682 FIGURE 1454B

AAACGCCTCATTGCTGGTTGCATTGGGAAACCCTTGGGAGAGCAGTTCCGAAAAGAAGTTCACATTAAGAATCTT CCCTCACTTTCAAAAAAACAAAGCCAATGCTGGAGACGGAGGTGCTGGACAATGATGGGGGGTGGCCTGGCCACC  $\mathtt{ATCTTTGAACCC}$  TGA  $\mathtt{ATCAAGCTTTTGGGCATCCTTCCTCGGCCTTTCTTGTCATCTCTTCTTTCCCTTTGTAGC$ CGATCTCTAGGCCCTTCTTGCACTGCCACCTCACTTTCCACCACTGTCAGCCTGGAAAGAGATCCAGGTCTGGAG CTGGAGAGACAGGCCCTGTGCAGGACCAGAAGTAATTATACTAAAGTATCAAGAAAGGGAGTTAGGGCTTAAAC TATTCTGTCTAGATGTCCCAGATAGTTCCCATTCTACTTGGAGATTTGGCTTTTCCAAGAAAAGCTAGAGCAGAG CAGCCCTTCTCCCACAAGCCCTCCCACCCCGTGCAGCCACATACCTGTACAGAATGGTAACTAAGGGTGCTGTG CCCAACCCTGCGACTAGCAAGGCTCGCAGCAAGAGCACAGCCCTCAACTACTTGTGCCAGAGTTTCTCTTGGACC ACTCCAACTCCCACTGAGCCCTTTTGCTGCTGGGCTGGCAGGAAACTTTCCCCACTCCCTAAGGGGCATGTCTGG GTTAGGTGCTAAGTGCTGAAGAACTTGGTCAGTTCTCTCAACTTTGCTTTGGGCAAGAATCTGGTCACCTGAT GGGATCCATGGTACAGGCTACTGCTAAACTTGGCACAGTATCAAGTATAGTACCTCCAAGGACCAGGGCTGGGAA CAGCCTCAAGGTCCACTCAGGCACAAGAGCCACAGTACCCTAGATAGTGTCACATGACACCGTTGTCATCCAAGG ATAATACAGACCAACTAGGCTACATCTGTGATGAGCAGCTAGCAAAGCCGCTGGTCTTCTCCTAGGACTAAGTCC AGGTGCCTTCCACAATCTCATGGTCTTTCAGGTCCCTGGTTACTTTTCTCAAAGGCCATTTCCAAAAGAATACAT GCCTTCACATCACAACCTGTACTGTGAGTCCATTCTAGAGGTCACTGAAAGGCCCTGTAAAGAGAGACATGGAT ACGGGACCTGGCCCTGAGGTTATTACTGGCCGTAAGGCAGAGTTAATCCATACAGAAACCAGTGTGTCCATGTGC - TCTGCACAAAAACAGACCTGTTGTCCATCCAGTCCACTGACAAGAGGGTTTCCCCGAGAGCCGAAGTGGACTGAA GCTACAGTTTTTAGCTGGTGCGGGCCACAGGCAGGGTCAGATTGAGAAGAAGCAAAGCTGGGGAAGCAGAAGTTG GGAGTCTTGTGTTGCTCCCTCTTCCTGTGTGGTGCTCTTGGGTTTCTGTGGATCGTGAAGGCGATCTCAAGAGTGT TAATATTTTTAACATCCTGTGACTTCATGCTAGAAATTTTCTATTGTTATAGAAACTTTTTGTAGAAACATTAA CTCTAAAGCACATCTGCATGTCAGTAAAAATCTCAGTTTCGTACAG

#### 1603/2682 FIGURE 1455

ENHIKDALSRIVVEMIKREWPQHWPDMLIELDTLSKQGETQTELVMFILLRLAEDVVTFQTLPPQRRRDIQQTLT
QNMERIFSFLLNTLQENVNKYQQVKTDTSQESKAQANCRVGVAALNTLAGYIDWVSMSHITAENCKLLEILCLLL
NEQELQLGAAECLLIAVSRKGKLEDRKPLMVLFGDVAMHYILSAAQTADGGGLVEKHYVFLKRLCQVLCALGNQL
CALLGADSDVETPSNFGKYLESFLAFTTHPSQFLRSSTQMTWGALFRHEILSRDPLLLAIIPKYLRASMTNLVKM
GFPSKTDSPSCEYSRFDFDSDEDFNAFFNSSRAQQGEVMRLACRLDPKTSFQMAGEWLKYQLSTFLDAGSVNSCS
AVGTGEGSLCSVFSPSFVQWEAMTLFLESVITQMFRTLNREEIPVNDGIELLQMVLNFDTKDPLILSCVLTNVSA
LFPFVTYRPEFLPQVFSKLFSSVTFETVEESKAPRTRAVRNVRRHACSSIIKMCRDYPQLVLPNFDMLYNHVKQL
LSNELLLTQMEKCALMEALVLISNQFKNYERQKVFLEELMAPVASIWLSQDMHRVLSDVDAFIAYVGTDQKSCDP
GLEDPCGLNRARMSFCVYSILGVVKRTCWPTDLEEAKAGGFVVGYTSSGNPIFRNPCTEQILKLLDNLLALIRTH
NTLYAPEMLAKMAEPFTKALDMLDAEKSAILGLPQPLLELNDSPVFKTVLERMQRFFSTLYENCFHILGKAGPSM
QQDFYTVEDLATQLLSSAFVNLNNIPDYRLRPMLRVFVKPLVLFCPPEHYEALVSPILGPLFTYLHMRLSQKWQV
INQRSLLCGEDEAADENPESQEMLEEQLVRMLTREVMDLITVCCVSKKGADHSSAPPADGDDEEMMATEVTPSAM
AELTDLGKCLMKHEDVCTALLITAFNSLAWKDTLSCQRTTSQLCWPLLKQVLSGTLLADAVTWLFTSVLKGLQMH
GQHDGCMASLVHLAFQIYEALRPRYLEIRAVMEQIPEIQKDSLDQFDCKLLNPSLQKVADKRRKDQFKRLIAGCI
GKPLGEQFRKEVHIKNLPSLFKKTKPMLETEVLDNDGGGLATIFEP

#### 1604/2682 FIGURE 1456

GCACGAGGCCGTGGAGGCGCCACGTCCCTTGCGGCGGCGGAGAGAAATCGCTTGGACTTCGGGGCGGCCTCGGA CGGCCATGCCTTTACCCTGTACTCACTGCTGCAGGCAGCCCTGCTCTGCGTCAACGCCATCGCAGTGCTGCACG AGGAGCGATTCCTCAAGAACATTGGCTGGGGAACAGACCAGGGAATTGGTGGATTTGGAGAAGAGCCGGGAATTA AATCACAGCTAATGAACCTTATTCGATCTGTAAGAACCGTGATGAGAGTGCCATTGATAATAGTAAACTCAATTG AGTTATTACTTTGGTCATTATTGGAATATTTATATCTTAGCTTGGCTGACCTTGCACTTGTCAAAAATGTAAAGC AGATCATGAAAGGCAGTAACTCTCCAGGACTGGAATATCTGATTGCTCAGTGTTAATAGTAGTTCATGCTGTGGT GAGATTGTTAAAAGGGTGCAAGACTGTTGCTTCTCTTTTTTTAGATATTTTTCTATCTCTCACTTCTCAGGGATG AAATTCTTTTTCAAAGTTTTGAAGTTCCTTGCAACTTAGCCATGATGTGAGTGGTTATCCCTAGATAAAATTAAA AGGATTTTTAAAAAGTAATTACTGCACATAAAATGATAAATAGGTAATTTGAATAATTTTATTTTAAGCTCCTTG TCAGGGAGAATTCTGTCAGTCACATGATGATTATGTTTTTGTTTAACAATTCTTTCCATGCACTTGTTATTTTAT TAATTTGCCTGAATGATGAGACCAGACCAGTGTCTACAGATTTTCATTGTCAGAAAAATCTATAAGTCTGCCCTT TTTACAATGATGATTTAAAAAAAACAACAGCGTAAATATTAGCCCACAAGAGCAGTCCTAAACAATCACAATTAC ACTGTACTACCCAAGAAGACTGTTTATTGTGAAGCATTTACCTTTCAAAAAATCATTACATTTCTAGTT GGAGCACCACTTGTGGAGTGTGATTCTTAATTCTTCATTGAGTTTGTCAATAGGACATTGATGCTGGATAGGTT GTCTTTTGTTTTTATGTCTCAGACCATCTTGTGAGATTGTTTGCCTATCTCATAATACAGTTTTATGCAGAAAGG  $\tt TTGAAACTATGTAAATGGTTTTTATGGAAATTATCAGTTACAATATTTTAAAGGTGTAGAATGGCATCTTTGTTT$ ATAGGAGAACATTTGTAAATAAAGTTAAATTTCTAAGCCTTTAAAATATTGTAACTGATAATTTCCATAAAAACC ATTTACATAGTTTCAACCTTTCTGCATAAAACTGTATTATGAGATAGGCAAACAATCTCACAAGATGGTCTGAGA CATAAAAA

## 1605/2682 FIGURE 1457

MAFTLYSLLQAALLCVNAIAVLHEERFLKNIGWGTDQGIGGFGEEPGIKSQLMNLIRSVRTVMRVPLIIVNSIAI

#### 1606/2682 FIGURE 1458

GTCTGTAATCCGTGTCTCCAGTAGTAGCTGCAGTGACTGTAGGTATCGGTGTTCCTATT**ATG**TTAGCTTATGTCT ATGGCGTAGTTCCAATTTCTCTTTGTCGAAGCGGAGGTTGTGGAGTCTCAGCAGGCAATGGAAAAGGAGTTAGGA TTGAATTTGATGATGAAAATGATATAAATGTTGGTGGAACTAACACAGCTGTAGACACAACATCAGTAGCAGAAG CAAGACACAACCCAAGCATAGGGGAGGGAAGTGTTGGTGGGCTGACTGGCAGTTTGAGTGCAAGTGGAAGCCACA TGGATCGAATAGGAGCCATCCGAGACAACCTGAGTGAAACGGCCAGCACCATGGCACTAGCTGGAGCCAGTATAA GGTACAGTCTAAGTGGAGAATCTGGCACAGTCAGCTTGGGAACAGTTAGTGATAATGCCAGCACCAAAGCAATGG CAGGATCCATTCTGAATTCCTACATCCCATTGGACAAAGAAGGCAACAGTATGGAGGTGCAAGTAGATATTGAGT CAAAGCCATCCAAATTCAGGCACAACAGTGGAAGCAGTAGTGTGGATGATGGCAGTGCCACCCGAAGTCATGCTG GCGGTTCATCCAGTGGCTTGCCTGAAGGTAAATCTAGTGCCACCAAGTGGTCCAAAGAAGCAACAGCAGGGAAAA TGTTAGAACAACAAAGCACGAACTCAAGTGAATTTGAGGCTCCATCCCTCAGTGACAGTATGCCTTCTGTAGCAG ATTCTCACTCTAGTCATTTTTCTGAATTTAGTTGTTCTGACCTAGAAAGCATGAAAACTTCTTGTAGTCATGGTT CCAGTGATTATCACACCCGCTTTGCTACTGTTAACATTCTTCCTGAGGTAGAAAATGACCGTCTGGAAAATTCCC CACATCAGTGTAGCATTTCTGTGGTTACCCAAACTGCTTCCTGTTCAGAAGTTTCACAGTTGAATCATATTGCTG AAGAACATGGTAACAATGGAATAAAACCTAATGTTGATTTATATTTTGGCGATGCACTAAAAGAAACAAATAACA  ${\tt ACCACTCACATCAGACAATGGAATTAAAAGTTGCAATTCAGACTGAAATT{\color{red}{\textbf{TAG}}}{\tt GCCCATAAATGCTGCAGAATAA}}$ TTACCACTGTACAACCGTGTTTGGAGCTGGTTGAACTACATGTGACTAACTTTAAGTTTCAGGTTACCAGCAAAAGC CGGGTTTCATTATCATAATGCAGATACATTTTCTGTGTTCAGCAAGGCATTGTGTGTCATGTGGATCTTAGTTAC CAAACTATGAAGTGAAGGCTTTAAAAGTGCATTATTTTAAGGATAATAAATTTGAAGAGCAAAGCATGTTTTGTG ACTAATGCAATTCTACAGCATTCAAATGAAGAAAACTTGAGGCTTTAGGGATAAGTGGTTAGTGATATTTTATTG **AAACCACTAAAGAGATAAGTTTAAAAGAACTGCATAGGTTACTCTCAGTATATGATACTCTGTAACATTTCTATT** TATATCGGCATAAATTTCATTTTTTTTCTTCATATGCAATGTGGTTATATAAAGCTTAATGCAGCTCATTTGCTA CCATTTGGATACTTAGACACTTTGAGCAAGATTGTGGCAGTTTTTGCACAACTTTGAAATAGAAATACCTGGTAC **AATAAGATACATAAAACTACAAAATAAAGTCCCATTAGGTTATAAGTATTACAAAAAAATCCACCTTTCTCTAAGG** GGAAGTTTGTACCCCATTGATTCTTGGTGCCTTTGGGATCGACTGGGTTTTAATGGCCTAGTTATTTGAGGATTT TGTGATTAATAATGCTGAAAAAGTATTAGCCTACCAAAGACACTCAGGCTTTAGTGAATAACTTTACATAACC TCAGTTTTTAACACATGCATATCTTCTCCAACCATGAAATCAAAGCACGGTGCAGAACTTGTACCAAGTACAAAA GGTCCATGTATGATTAGCATTATTTTCTTTTGCTTTTGTTTATGGACAATGTTCAGCTGACATAAGCAGAAGTTG AAAAAAA

## 1607/2682 FIGURE 1459

MLAYVYGVVPISLCRSGGCGVSAGNGKGVRIEFDDENDINVGGTNTAVDTTSVAEARHNPSIGEGSVGGLTGSLS
ASGSHMDRIGAIRDNLSETASTMALAGASITGSLSGSAMVNCFNRLEVQADVQKERYSLSGESGTVSLGTVSDNA
STKAMAGSILNSYIPLDKEGNSMEVQVDIESKPSKFRHNSGSSSVDDGSATRSHAGGSSSGLPEGKSSATKWSKE
ATAGKKSKSGKLRKKGNMKINETREDMDAQLLEQQSTNSSEFEAPSLSDSMPSVADSHSSHFSEFSCSDLESMKT
SCSHGSSDYHTRFATVNILPEVENDRLENSPHQCSISVVTQTASCSEVSQLNHIAEEHGNNGIKPNVDLYFGDAL
KETNNNHSHQTMELKVAIQTEI

#### 1608/2682 FIGURE 1460

GGCACGAGCGGCACGAGCGCAGGCGCCTCGCGGCAGGAGCGGGATTTCCGGGGTCACGGGAACCGGCAGGGGAA CTACAAGAACGGAGGACAGGGGCGCACGATGGTCCCGGGGGGGAGCGGAAACAAAGGCACGCAAAACGGAAAAGGC  ${\tt TGTGTAGGGGAGCGGAAAAGGAAGTCACCACCGTGGCCTGCGACGAA} \underline{{\tt ATG}} {\tt GCGAAAAGTCTTTTGAAGACAGCCT}$ CTCTGTCTGGAAGGACAAAATTGCTACATCAAACAGGATTGTCACTTTATAGTACATCCCATGGATTTTATGAGG TTCTTACTCTGAACAATCCAAGTAGAATGAATGCCTTTTCAGGTGTTATGATGCTACAACTTCTGGAAAAAGTAA TTGAATTGGAAAATTGGACAGAGGGGAAAGGCCTCATTGTCCGTGGGGCAAAAAAATACTTTCTCTTCAGGATCTG ATCTGAATGCTGTGAAAATCACCATAGGAATCTCCCAGAGGAGACTTCCTTTAATAAGTGTTGCGCTGGTTCAAG GTTGGGCATTGGGTGGAGGAGCAGAATTTACTACAGCATGTGATTTCAGGTTAATGACTCCAGAGAGTAAGATCA GATTCGTCCACAAAGAGATGGGCATAATACCAAGCTGGGGTGGCACCACCCGGCTAGTTGAAATAATCGGAAGTA GACAAGCTCTCAAAGTGTTGAGTGGGGCCCTTAAACTGGATTCAAAAAATGCTCTAAACATAGGAATGGTTGAAG AGGTCTTGCAGTCTTCAGATGAAACTAAATCTCTAGAAGAGGCACAAGAATGGCTAAAGCAATTCATCCAAGGGC CACCGGAAGTAATTAGAGCTTTGAAAAAATCTGTTTGTTCAGGCAGAGAGCTATATTTGGAGGAAGCATTACAGA ACGAAAGAGATCTTTTAGGAACAGTTTGGGGTGGGCCTGCAAATTTAGAGGCTATTGCTAAGAAAGGAAAATTTA ATAAATAATTGGTTTTTCGTGTGGATGTACTCCAAGTAAAGCTCCAGTGACTAATATGTATAAATGTTAAATGAT GAAATCTGAACTCATTTACCTCATTTCTTGCCAATTACTCCCTTGGGTATTTACTGCGTAATTGGAACATTTACT 

## 1609/2682 FIGURE 1461

MAKSLLKTASLSGRTKLLHQTGLSLYSTSHGFYEEEVKKTLQQFPGGSIDLQKEDNGIGILTLNNPSRMNAFSGV MMLQLLEKVIELENWTEGKGLIVRGAKNTFSSGSDLNAVKITIGISQRRLPLISVALVQGWALGGGAEFTTACDF RLMTPESKIRFVHKEMGIIPSWGGTTRLVEIIGSRQALKVLSGALKLDSKNALNIGMVEEVLQSSDETKSLEEAQ EWLKQFIQGPPEVIRALKKSVCSGRELYLEEALQNERDLLGTVWGGPANLEAIAKKGKFNK

## 1610/2682 FIGURE 1462

<u>ATC</u>TTGGTGCTGTTTGAAACGTCTGTGGGTTACGCCATCTTTAAGGTTCTAAATGAGAAGAAACTTCAAGAGGTT CAGGATACAGCAGAAGCATTAGCAGCATTCACAGCTCTGATGGAGGGCAAAATCAATAAGCAGCTGAAAAAGTT CTGAAGAAAATAGTAAAAGAAGCCCATGAACCGCTGGCAGTAGCTGATGCTAAACTAGGAGGGGTCATAAAGGAA TTAATCCCTGGGGTAGAACCACGTGAAATGGCAGCTATGTGTCTTGGATTGGCTCACAGCCTGTCTCGATATAGA TTGAAGTTTAGCGCTGATAAAGTAGACACAATGATTGTTCAGGCAATTTCCTTGTTAGATGACTTGGATAAAGAA AATTTAACATACTGCAAGTGTTTACAGAAAGTTGGCGATAGGAAGAACTATGCCTCTGCCAAGCTTTCTGAGTTG CTGCCAGAAGAAGTTGAAGCAGAAGTGAAAGCAGCTGCAGAGATATCAATGGGAACAGAGGTTTCAGAAGAAGAT ATTTGCAATATTCTGCATCTTTGCACCCAGGTGATTGAAATCTCTGAATATCGAACCCAGCTCTATGAATATCTA CAAAATCGAATGATGGCCATTGCACCCAATGTTACAGTCATGGTTGGGGGAATTAGTTGGAGCACGGCTTATTGCT  ${\tt CATGCAGGTTCTCTTTTAAATTTGGCCAAGCATGCAGCTTCTACCGTTCAGATTCTTGGAGCTGAAAAGGCACTT}$ TTCAGAGCCCTCAAATCTAGACGGGATACCCCTAAGTATGGTCTCATTTATCATGCTTCACTCGTGGGCCAGACA AGTCCCAAACACAAAGGAAAGATTTCTCGAATGCTGGCAGCCAAAACCGTTTTGGCTATCCGTTATGATGCTTTT GGTGAGGATTCAAGTTCTGCAATGGGAGTTGAGAACAGAGCCAAATTAGAGGCCAGGTTGAGAACTTTGGAAGAC AGAGGGATAAGAAAAATAAGTGGAACAGGAAAAGCATTAGCAAAAACAGAAAAATATGAACACAAAAGTGAAGTG AAGACTTACGATCCTTCTGGTGACTCCACACTTCCAACCTGCTCTAAAAAACGCAAAATAGAACAGGTAGATAAA GTGGCAGAAGAAGAAGAACATCTGTGAAGAAGAAGAAGAAGGGGTAAAAAGAAACACATTAAGGAAGAACCA GAGAACGAGGAT<u>TAA</u>

#### 1611/2682 FIGURE 1463

MLVLFETSVGYAIFKVLNEKKLQEVDSLWKEFETPEKANKIVKLKHFEKFQDTAEALAAFTALMEGKINKQLKKV LKKIVKEAHEPLAVADAKLGGVIKEKLNLSCIHSPVVNELMRGIRSQMDGLIPGVEPREMAAMCLGLAHSLSRYR LKFSADKVDTMIVQAISLLDDLDKELNNYIMRCREWYGWHFPELGKIISDNLTYCKCLQKVGDRKNYASAKLSEL LPEEVEAEVKAAAEISMGTEVSEEDICNILHLCTQVIEISEYRTQLYEYLQNRMMAIAPNVTVMVGELVGARLIA HAGSLLNLAKHAASTVQILGAEKALFRALKSRRDTPKYGLIYHASLVGQTSPKHKGKISRMLAAKTVLAIRYDAF GEDSSSAMGVENRAKLEARLRTLEDRGIRKISGTGKALAKTEKYEHKSEVKTYDPSGDSTLPTCSKKRKIEQVDK EDEITEKKAKKAKIKVKVEEEEEEKVAEEEETSVKKKKKKRGKKKHIKEEPLSEEEPCTSTAIASPEKKKKKKKKR ENED

#### 1612/2682 FIGURE 1464

GGCACGAGGCTCAGCGTTTGAGTCAGCCAGGAGTAGCAATAGGTTTGGCTTGGACTCCCTTAGGTGGAGAAATCA  $\tt TGTTCGTGGAGGCGAGTCGAATGGATGGCGAGGGCCAGTTAACTCTGACCGGCCAGCTCGGGGACGTG{\color{red} ATG} {\color{blue} ATG} {\color{blue} AAGG} {\color{blue} ATG} {\color{blue} ATG}$ AGTCCGCCCACCTCGCTATCAGCTGGCTCCGCAGCAACGCAAAGAAGTACCAGCTGACCAATGCTTTTGGAAGTT TTGATCTTCTTGACAACACAGACATCCATCTGCACTTCCCAGCTGGAGCTGTCACAAAAGATGGACCATCTGCTG GAGTTACCATAGTAACCTGTCTCGCCTCACTTTTTAGTGGGCGGCTGGTACGTTCAGATGTAGCCATGACTGGAG AAATTACACTGAGAGGTCTTGTTCTTCCAGTGGGTGGAATTAAAGACAAAGTGCTGGCGGCACACAGAGCGGGAC TGAAGCAAGTCATTATTCCTCGGAGAAATGAAAAAGACCTTGAGGGAATCCCAGGCAACGTACGACAGGATTTAA GTTTTGTCACAGCAAGCTGCCTGGATGAGGTTCTTAATGCAGCTTTTGATGGTGGCTTTACTGTCAAGACCAGAC  $\texttt{CTGGTCTGTTAAATAGCAAACTG} \underline{\textbf{TAG}} \\ \texttt{GTCCAAATCTCAATTTTTAGAATTTTAAGTTATGAAGTGCTCAAAGGT} \\$ ACTGACACAGTTGATTTATTCACACCATTAGGGGTATGCAAGATGTCCCTGTTTTATAAACATAATCACAACAG TAATAAACCTCAAGTAGTGGCTAGTGTTTAGTATAGAAATATAAGATGTTGATTTAGTAAACTGATAAAAATCGA ATTCTTGTCTTTTTAGTGGGATCCTTACTGTCCCTGGAAAGATATAGCATAGTGGTTCTCAGCACAGTCTCCAGA ACAGAAGCATCTGTAGTACCTGGTAACTTGTTAGAAATGTACATTCTCAGGCTCCACAGCAGGCCGCCTGAATCA AATCCTGGGAGGTGGGGACAGAAATCTGTGTTTTAAGAAGCCTTCCAGGTAATTCTGCTGCACACTCAAGTTCAG GGCTCACACCTGTAATTCCAGCACTTTGGGAGGTCGAGGTAGGCAGATCACCGAGCCCAAGAGTTCAAGACAATC CTGGCCAACGGCGAAACTCTGTCTCTACAAAAAATATACAGGCGTGTTAGCATGTGCCTGTAATCCCAGCTTCTT GGGAAGCTGAGGCACAAGAATTGCCTGAACCCAGGAGGTGGAGGTTGCAGTGAGCTGGGATCGCGCCATTGCACT GTGCTGGCACACCTCACAGAAGCACCCTGGCCCTGGATGCCTGCAACCTCAGAAGAGTGCAGCTCCCAGAGGGAG TGAAGTCAGGCTCATCTGCTTACTGGCTGTGTGAACTTTTTGTATCTTGGTTTTCTTCATCCATGAAATCCAAGT AATACTACCTAATTGTTACTGTGGAGATTAAGTTCAAATGCAATGTATAGTAATATTAAGCAATTTCTAGTTATT TCCTGGATGAGAAGGAAGTCTGGGCTGGGCATGGTGGCTCACGCCTGTAACCCTAGCACTTTAGGAAATCGAGGC GAGTGGATCACTTAAGCTCAGGAGTTCAAGGCCAGCCTGGGCAACATGGCAAAACCCCCATTTCTACAAAAAATAC GGGGCTGCAGTGAGCCAAGATCACGCCACTGCACTCCAGCACCCTGGGCGACAGAGTGAGACCCTGTCTCAAAAA ΑΑΑΑΑΑΑΑΑΑΑ

## 1613/2682 FIGURE 1465

MKESAHLAISWLRSNAKKYQLTNAFGSFDLLDNTDIHLHFPAGAVTKDGPSAGVTIVTCLASLFSGRLVRSDVAM TGEITLRGLVLPVGGIKDKVLAAHRAGLKQVIIPRRNEKDLEGIPGNVRQDLSFVTASCLDEVLNAAFDGGFTVK TRPGLLNSKL

#### 1614/2682 FIGURE 1466

TGGCACCGGCATCGGCTGACACTGCTCCAGCTAGTTATTTCGTCCTCTTCCGTTCTTCACCCCTACACCTT GGAGGTGAACTTCTCACCTGAGGGCTGTAAAGACTCGTTTGAAAAATCGAGAGCCCAAGAACCAACGGAATCTTCTC AGAATGGCAAACAGTATATCATTTCAGAGGAGTTAATTTCAGAAGGAAAATGGGTCAAGCTTGAAAAAACAACGT GTGTCGCGGTCATCCCCGTGCTGCAGAGAACACTTCACTATGAGTGTATCGTTCTGGTGAAACAGTTCCGACCAC CAATGGGGGGCTACTGCATAGAGTTCCCTGCAGGTCTCATAGATGATGGTGAAACCCCAGAAGCAGCTGCTCTCC GGGAGCTTGAAGAAGAAACTGGCTACAAAGGGGACATTGCCGAATGTTCTCCAGCGGTCTGTATGGACCCAGGCT TGTCAAACTGTACTATACACATCGTGACAGTCACCATTAACGGAGATGATGCCGAAAACGCAAGGCCGAAGCCAA AGCCAGGGGATGGAGAGTTTGTGGAAGTCATTTCTTTACCCAAGAATGACCTGCTGCAGAGACTTGATGCTCTGG TAGCTGAAGAACATCTCACAGTGGACGCCAGGGTCTATTCCTACGCTCTAGCGCTGAAACATGCAAATGCAAAGC  $\texttt{CATTTGAAGTGCCCTTCTTGAAATTT}\underline{\textbf{TAA}} \texttt{GCCCAAATATGACACTGGCCATTTTTGTAAACGAGACCACCAGGCC}$ TTCTTCACTAAGACTTTGTATTCAACTTAGTTTAATGTAGATTTGCCATTAGCTTTTTCGTAAAATAAAAGCACA GCTAAAATTAACAAAGAATATAAATGCAAGTATGTTTACTCCAATTTTTTTAAAGCTCAACAGAGTTAACTACAG  $\verb|CTCAGTTACTTTTCTAGTCCAGTCTGGAACACAGGGGTATTTGGTATTGAGAAATAGACCTGAGTTCTCAATTAG|\\$ GTCA

# 1615/2682 FIGURE 1467

MESQEPTESSQNGKQYIISEELISEGKWVKLEKTTYMDPTGKTRTWESVNVPTRKEQTADGVAVIPVLQRTLHYE CIVLVKQFRPPMGGYCIEFPAGLIDDGETPEAAALRELEEETGYKGDIAECSPAVCMDPGLSNCTIHIVTVTING DDAENARPKPKPGDGEFVEVISLPKNDLLQRLDALVAEEHLTVDARVYSYALALKHANAKPFEVPFLKF

#### 1616/2682 FIGURE 1468

## 1617/2682 FIGURE 1469

 ${\tt MARNTLSSRFRRVDIDEFDENKFVDEQEEAAAAAAEPGPDPSEVDGLLRQGDMLRAFHAALRNSPVNTKNQAVKE} \\ {\tt RAQGVVLKVLTNFKSSEIEQAVQSLDRNGVDLLMKYIYKGFEKPTENSSAVLLQWHEKALAVGGLGSIIRVLTAR} \\ {\tt KTV}$ 

## 1618/2682 FIGURE 1470

ACGATGGCATGACAACCGACGTTGGAGTTTGGAGGTGCTTGCCTTAGAGGCAAGGGAAACAGCTCTCATTCAAAGG AACTAGAAGCCTCTCCCTCAGTGGTAGGGAGACAGCCAGGAGCGGTTTTCTGGGAACTGTGGGATGTGCCCTTGG TGTCCTATGACCTCTTTGTCAATTCCTTCTCAGAACTGCTCCAAAAGACTCCTGTCATCCAGCTTGTGCTCTTCA TCATCCAGGATATTGCAGTCCTCTTCAACATCATCATCATTTTCCTCATGTTCTTCAACACCTTCGTCTTCCAGG  $\tt CTGGCCTGGTCAACCTCCTATTCCATAAGTTCAAAGGGACCATCATCCTGACAGCTGTGTACTTTGCCCTCAGCA$ TCTCCCTTCATGTCTGGGTCATGAACTTACGCTGGAAAAACTCCAACAGCTTCATATGGACAGATGGACTTCAAA TGCTGTTTGTATTCCAGAGACTAGCAGCAGTGTTGTACTGCTACTTCTATAAACGGACAGCCGTAAGACTAGGCG ATCCTCACTTCTACCAGGACTCTTTGTGGTTGCGCAAGGAGTTCATGCAAGTTCGAAGG<u>TGA</u>CCTCTTGTCACAC TGATGGATACTTTTCCTTCCTGATAGAAGCCACATTTGCTGCTTTGCAGGGAGAGTTGGCCCTATGCATGGGCAA CTTTCCTCTGTACCATTCATTCTCCCTGACCGGCCTTTCTTGCCGAGGGTTCTGTGGCTCTTACCCTTGTGAA GCTTTTCCTTTAGCCTGGGACAGAAGGACCTCCCAGCCCCCAAAGGATCTCCCAGTGACCAAAGGATGCGAAGAG TGATAGTTACGTGCTCCTGACTGATCACACCGCAGACATTTAGATTTTTATACCCAAGGCACTTTAAAAAAATGT 

# 1619/2682 FIGURE 1471

 $\label{thm:local_model} $$ \text{MLQTSNYSLVLSLQFLLLSYDLFVNSFSELLQKTPVIQLVLFIIQDIAVLFNIIIIFLMFFNTFVFQAGLVNLLF}$$ $$ \text{HKFKGTIILTAVYFALSISLHVWVMNLRWKNSNSFIWTDGLQMLFVFQRLAAVLYCYFYKRTAVRLGDPHFYQDS}$$$ $$ \text{LWLRKEFMQVRR}$$$ 

#### 1620/2682 FIGURE 1472

AGCCCTGTCCCGGTCAGAGAAAGACGACGAGGATACCTGGGAGCGGCGGCGGGCCGGGCTGGGCCGCCGGTGC GGGCTGGCGACTCTGCTCCTCCGCTTGCTGTCTCTGGGAACTGGGTGCCAGCGCTGAGGGGCTTCCAGCGGA CAGGGACCCCTTCCCCGGCTCCCCTGCCCACCTGCCGGGGAGGGCGGAAGATGCCGGTGAAGAAGAAGAAAAA ATCCCCTGGGGTGGCAGCAGCAGTAGCGGAAGACGGAGGCCTCAAAAAGTGTAAAATCTCCAGCTATTGCAGATC TGCAGGTCCTGATGAAGTTGTAGGGCCAGAAGGAATGGAAAAATTTTGTGAAGACATTGGTGTTGAACCTGAAAA TATTATTATGTTAGTTTTAGCGTGGAAATTGGAGGCTGAAAGCATGGGATTTTTTACCAAGGAAGAATGGTTAAA GGGAATGACTTCATTACAGTGTGACTGCACAGAAAAGTTACAAAACAAATTTGACTTTTTGCGCTCACAGTTGAA TGATATTTCGTCATTTAAGAATATCTACAGATATGCCTTTGATTTTGCAAGGGATAAAGATCAGAGAAGCCTTGA  ${\tt TATTGATACTGCTAAATCTATGTTAGCTCTTCTGCTTGGGAGGACATGGCCACTGTTTTCAGTATTTTACCAGTA}$ CCTGGAGCAATCAAAGTATCGTGTTATGAACAAAGATCAATGGTACAATGTATTAGAATTCAGCAGAACAGTCCA TGCTGATCTTAGTAACTATGATGAAGATGGTGCTTGGCCTGTTCTTCTTGATGAATTTGTTGAGTGGCAAAAAGT  $\texttt{CCGTCAGACATCA} \underline{\textbf{TAG}} \texttt{CAAGAACTATGTGAAGAAAATGCAAACCTTTCAATTCCCACGTGTATACAAGCTAATGT}$ TTTTAAAGGAGGTTTTTCTTGTTACATGTGATGGGCCATTGAGCCACCCTCTTCTTAGACTGAATATTGAAGTTT ΑΑΑΑΑΑΑΑΑΑ

## 1621/2682 FIGURE 1473

MPVKKKRKSPGVAAAVAEDGGLKKCKISSYCRSQPPARLISGEEHFSSKKCLAWFYEYAGPDEVVGPEGMEKFCE DIGVEPENIIMLVLAWKLEAESMGFFTKEEWLKGMTSLQCDCTEKLQNKFDFLRSQLNDISSFKNIYRYAFDFAR DKDQRSLDIDTAKSMLALLLGRTWPLFSVFYQYLEQSKYRVMNKDQWYNVLEFSRTVHADLSNYDEDGAWPVLLD EFVEWQKVRQTS

#### 1622/2682 FIGURE 1474

TAACTCCTTCCCTCTTTGCGGATTCTAGAACGGAACCTTTTTTTAATTCTTCCCAGTAGAAACGTAGGAACAATT TCGTGAACGCAATCCGGAGTGCCCAACATGGCGGCGGCCGTAAGGTGCATGGGTAGAGCCTTGATACATCATCAA CATTTTGCTGCTGCTACAAAGTCTGCAAAGAAAACAAAAAAAGGTGCTAAAGAAAAAACACCAGATGAGAAAAAAA GATGAAATAGAAAAATAAAAGCATATCCCTATATGGAAGGCGAACCTGAGGATGATGTCTATTTAAAACGCTTA CCAAAGCAAAGTGTTTATCTTGATTTGACACTGGATATGGCACTGGGAAAGAAGAAAAACGTGGAGCCATTTACC GTCAAAATAGCGGAAGAAAATGGAGCTGCATTTGCAGGAGGCACTAGTCTGATACAGAAGATTTGGGATGATGAA  ${\tt ATTGTTGCAGACTTTTACGTAGCTGTTCCAGAAATAATGCCTGAACTTAATCGATTAAGGAAGAAACTGAATAAA}$ AAATATCCAAAGCTTTCTCGAAATTCCATTGGCCGTGACATCCCCAAAATGCTTGAATTATTTAAAAATGGACAT GAAATTAAGGTAGATGAAGAAAGGGAGAACTTTCTCCAGACCAAAATAGCAACATTGGATATGTCAAGTGACCAG ATAGCTGCCAATCTGCAAGCAGTTATTAATGAAGTTTGTAGGCACAGACCGCTGAATTTGGGTCCCTTTGTGGTA  ${\tt CGTGCTTTCCTTCGTAGTTCAACAAGTGAAGGTTTATTACTGAAGATTGATCCATTGTTGCCTAAAGAAGTAAAA}$  $\mathtt{AATGAAGAAGTGAAAAAGAAGATGCC}$   $\mathtt{TAA}\mathtt{ATGTGGTGAATTGTGAAATTACTTTCAGTGGTTAAGAAGCAATG}$ GAGAAAATGATAATACAGCATAATTTTTACATTTGATGTCTTGTTATTGATCATACTTGAAAGTGAACTTTAACA AAAAAAAA

## 1623/2682 FIGURE 1475

MVYQTSLCSCSVNIRVPNRHFAAATKSAKKTKKGAKEKTPDEKKDEIEKIKAYPYMEGEPEDDVYLKRLYPRQIY EVEKAVHLLKKFQILDFTSPKQSVYLDLTLDMALGKKKNVEPFTSVLSLPYPFASEINKVAVFTENASEVKIAEE NGAAFAGGTSLIQKIWDDEIVADFYVAVPEIMPELNRLRKKLNKKYPKLSRNSIGRDIPKMLELFKNGHEIKVDE ERENFLQTKIATLDMSSDQIAANLQAVINEVCRHRPLNLGPFVVRAFLRSSTSEGLLLKIDPLLPKEVKNEESEK EDA

### 1624/2682 FIGURE 1476

# 1625/2682 FIGURE 1477

MAGSRLETVGSIFSRTRDLVRAGVLKEKPLWFDVYDAFPPLREPVFQRPRVRYGKAKAPIQDIWYHEDRIRAKFY SVYGSGQRAFDLFNPNFKSTCQRFVEKYTELQKLGETDEEKLFVETGKALLAEGVILRRVGEARTQHGGSHVSRK SEHLSVRPQTALEENETQKEVPQDQHLEAPADQSKGLLPP

#### 1626/2682 FIGURE 1478

# 1627/2682 FIGURE 1479

 ${\tt MVRISKPKTFQAYLDDCHRRYSCAHCRAHLANHDDLISKSFQGSQGRAYLFNSVVNVGCGPAEERVLLTGLHAVADIHCENCKTTLGWKYEQAFESSQKYKEGKYIIELNHMIKDNGWD}$ 

#### 1628/2682 FIGURE 1480

GTGACATTGAGCTCACCAGCGCCACCGTCCCCGGCGAAGTTCTGCGCTGGTCGGCGGAGAGCAAGTGGCC<u>ATG</u>G GAGCCTCAGCGGTCTGCGCCTGGCAGCAGGAAGCTGTTTTAGGTTATGTGAAAGAGATGTTTCCTCATCTCTAAG GCTTACCAGAAGCTCTGATTTGAAGAGAATAAATGGATTTTGCACAAAACCACAGGAAAGTCCCGGAGCTCCATT  ${\tt CCCGCACTTACAACAGAGTGCCTTTACACAAACCTACGGATTGGCAGAAAAAGATCCTCATATGGTCAGGTCGCT}$ TCAAAAGGAAGATGAAATCCCAGAGACTGTCTCGTTGGAGATGCTTGATGCTGCAAAGAACAAGATGCGAGTGAA GATCAGCTATCTAATGATTGCCCTGACGGTGGTAGGATGCATCTTTCATTGGTTATTGAGGGCAAGAAGCTTGCC CCAAAACAGATTACCAAAGGTATCCGTGTTGGTTGGGATTTTGAAAATCCAGGAATTATGTTTTAACGTGCCTGT  ${\tt ATTAAAAAGGATGTGGTATGAGGATCCATTTCATAAAGTA} {\tt TGAT} {\tt TTGCCCAAACCTGTACCATTTCCGTATTTCT}$ GCTGTAGAAGTAGAAATAAATTTTCTTAAATAATGACTGTGTTTTATTGTTTTGATCCAAGTCAAGTGTAGCCTC TCAGCCTTTTGGAGAAAAATGAAACAATTTATTTCAACTTGAATACCAACTCTTCAGAGAAGCAGGTACCATATC GAGAATAGTTTTTTAAACATTCTGACAAGGTCCAGCCAGGAATTTCTAAGGACTTAGAAATCCCAGTGTCATGGA GTTGCTTGGGGGTCAACACAAGTCACCTCTTAGCTTCATGCCTTAGAATTCTCAACTGGGCTGTTTTTCTTACCA CCTGAGAAACTAAAT

# 1629/2682 FIGURE 1481

MGSLSGLRLAAGSCFRLCERDVSSSLRLTRSSDLKRINGFCTKPQESPGAPFPHLQQSAFTQTYGLAEKDPHMVR SLQKEDEIPETVSLEMLDAAKNKMRVKISYLMIALTVVGCIFHWLLRARSLPKDRDFNQLGPLEKKARLKEGSSY EGQNRLPKVSVLVGILKIQELCFNVPVLKRMWYEDPFHKV

#### 1630/2682 FIGURE 1482

TCCAGCACCAAAGCGGCCGTTCTCGGATTCCGGAGCGTTCTGGAGCCCCGAGAGACGCCCCGGGGTTCTAGAAGC TCCCCGGCGCGCCCAGTCCCGGCTTCATTCGGGCGTCCCTCCGAAACCCACTCGGGTGCACGGGTCGTCGGCGA  ${\tt GCCGCGACCGGGTCCTGGCGCGCACC} \underline{{\tt ATC}} {\tt ATC} \underline{{\tt GTCGTGGCGGACTCCGAGTGCCGCAGAGCTCAAGGACTACCTGC}$ GGTTCGCCCGGGCGCGTCGGCGACTCGGGCCCCGGAGAGGAGGAGGAGGAGGCCGGGCTCGGCGAGGCCCTC GAGGGCCCAGCGCCTTCATCCCCGTGGAGGAGGTCCTTCGGGAGGGGGGTGAGAGCCTCGAGCAGCACCTGGGGC TGGAGGCACTGATGTCCTCTGGGCGAGTAGACAACCTGGCAGTGGTGATGGGCCTGCACCCTGACTACTTTACCA GCTTCTGGCGCCTGCACTACCTGCTGCACACGGATGGTCCCTTGGCCAGCTCCTGGCGCCACTACATTGCCA TCATGGCTGCCGCCATCAGTGTTCTTACCTGGTAGGCTCCCACATGGCCGAGTTTCTGCAGACTGGTGGTG ACCCTGAGTGGCTGCTGGGCCTCCACCGGGCCCCCGAGAAGCTGCGCAAACTCAGCGAGATCAACAAGTTGCTGG CGCATCGGCCATGGCTCATCACCAAGGAACACCTCAGGCCTTGCTGAAGACCGGCGAGCACACTTGGTCCCTGG  $\tt CCGAGCTCATTCAGGCTCTGGTCCTGCTCACCCACTGCCACTCGCTCTCCTTCGTGTTTGGCTGTGGCATCC$ TCCCTGAGGGGGATGCAGATGGCAGCCCTGCCCCCAGGCACCTACACCCCCTAGTGAACAGAGCAGCCCCCCAA GCAGGGACCCGTTGAACAACTCTGGGGGCTTTGAGTCTGCCCGCGACGTGGAGGCGCTGATGGAGCGCATGCAGC AGCTGCAGGAGAGCCTGCTGCGGGATGAGGGGACGTCCCAGGAGGAGATGGAGAGCCGCTTTGAGCTGGAGAAGT CAGAGAGCCTGCTGGTGACCCCCTCAGCTGACATCCTGGAGCCCTCTCCACACCCAGACATGCTGTGCTTTTGTGG AAGACCCTACTTTCGGATATGAGGACTTCACTCGGAGAGGGGCTCAGGCACCCCCTACCTTCCGGGCCCAGGATT ATACCTGGGAAGACCATGGCTACTCGCTGATCCAGCGGCTTTACCCTGAGGGTGGGCAGCTGCTGGATGAGAAGT TCCAGGCAGCCTATAGCCTCACCTACAATACCATCGCCATGCACAGTGGTGTGGACACCTCCGTGCTCCGCAGGG CCATCTGGAACTATATCCACTGCGTCTTTGGCATCAGATATGATGACTATGATTATGGGGAGGTGAACCAGCTCC TGGAGCGGAACCTCAAGGTCTATATCAAGACAGTGGCCTGCTACCCAGAGAAGACCACCCGAAGAATGTACAACC TCTTCTGGAGGCACTTCCGCCACTCAGAGAAGGTCCACGTGAACTTGCTGCTCCTGGAGGCGCGCATGCAAGCCG CTCTGCTGTACGCCCTCCGTGCCATCACCCGCTACATGACCTGACTCCTGAGCAGGACCTGGGCCCGGTTCAGCT CCCCACAAGGACTTCTCTGTCTGGAGACAGCCCCAGACCCTTTTGTGTCCCATGCCCACCCTCCCCACGCTGCAG GACTCTGGGATCTCAGCCCTGCTCCTGGGAGCTGGAAGAGCACTTGGAGATCCTAAGGGACCACACCCTTCCTCC TTCCCCTGCCCACAGAGGCAGAGGGCACAGGAAAGAAGCCGGGCCAAGCTCGGAATTAATGTGCCACAAGTGTTG TGGCCTTCCTGAACTGGGAAGTCCCTGGCTGGCCCCCGGGGGAGAGGGGCAAATGCCTCCGGGACTGACACTCCA GGCAGCTTTGCCTTCTCCCCTGTCATTTCCAGATTTCATTACCTCCTACTTGCCATTCACCCATCAATGTGAA AGTCAGGGTCACAGCTGGTCTGTGTGTCCAGTTCCCTAAAAGCCTGTTCTGTTGGGCAGCCTGAGGCTGTTGCCC GAATCCTAGTTCAGTTTTTGACTTCCTTTGCCCTTTTTCCCTTTTCTCCATGCTTAATGGTGTGAGGCGTCAGG AGAGAGGCCAAGTACATAAAAAAAAAAAAAAGCAGATTATCTCTAGAGAGTTTGAGCCTTTGCTGGTCACATTGC CTTCTGAAGAGGAGGAGTATTAGATTATAAATCCTCTTTATTTTTGGTCCTTTATGCTTGAGGTTCCAACCTGGA GCCACAGTGTGTGAGAGGAGGAGGAGGAGGAGAATTCTGTTCTCCCAGAGCTGCACCTGCCTCGCAGAGGCCAGC ACCCCACTCCTGCCTCCAGTGGCCCTGCCGCAGATGTCTCCCCAAAAAGTTGAGCCTTTCTAGATGGCTTAGGT GGCACCATGGCTCAGCAGGAGGGGCGGGAGGCACCAGGGTTCTTGTTTGGACCCTGCCCCTGGGCCATGGCCAGG TCTGAAGCTGCCCTGGGATTCTCAGGCCAACCTGCCAACAGCAGCGGATTTTCTTGCAAGATCAGGGACCCCA TTTCTGCAGCCAGTGTCTCCTGGGTGCCTTCTGAGGACTCCCACCCCCATCCCAGTATCTCATCTGTCCCCTCTC CTGGGGCTTAAGTGGGTTGCTTCCAGGCAGAAGCAGCCAAGGACCGATTCCAGGCACTTTCTGTAGCAAATGACT GTGAATTACGACTTCTCTTGCCCTTCTTCTAGCAGTCTGTGCCTCCTCTCTGACCAGTTTGGAGGGCACTGAAGA AAGGCAAGGGCCGTGCTGCTGCGGGGGGGGGGAGAGGAGCCTGGCCAGTGTGCCACATTAAATACCCGTGCA CCAGTGTTCAAGTGCAGAAATCTTTGGCTTTGCTACCAGTTCCATATGATGAGAAATAAACGTTCGCTGAGGTTT TGTTTCATAAAAAAAAAAAAAAAAA

## 1631/2682 FIGURE 1483

MIVADSECRAELKDYLRFAPGGVGDSGPGEEQRESRARRGPRGPSAFIPVEEVLREGAESLEQHLGLEALMSSGR VDNLAVVMGLHPDYFTSFWRLHYLLHTDGPLASSWRHYIAIMAAARHQCSYLVGSHMAEFLQTGGDPEWLLGLH RAPEKLRKLSEINKLLAHRPWLITKEHIQALLKTGEHTWSLAELIQALVLLTHCHSLSSFVFGCGILPEGDADGS PAPQAPTPPSEQSSPPSRDPLNNSGGFESARDVEALMERMQQLQESLLRDEGTSQEEMESRFELEKSESLLVTPS ADILEPSPHPDMLCFVEDPTFGYEDFTRRGAQAPPTFRAQDYTWEDHGYSLIQRLYPEGGQLLDEKFQAAYSLTY NTIAMHSGVDTSVLRRAIWNYIHCVFGIRYDDYDYGEVNQLLERNLKVYIKTVACYPEKTTRRMYNLFWRHFRHS EKVHVNLLLLEARMQAALLYALRAITRYMT

#### 1632/2682 FIGURE 1484

## 1633/2682 FIGURE 1485

 ${\tt MAVADLALIPDVDIDSDGVFKYVLIRVHSAPRSGLRLQRARRSCAATSGLSTMRTSTTKCRATCRSKAATVSVWAAGASPTRVRTRFTCTAIPWPMVLPSTPFQLRKSKPSTPTTRSPGLTTATEHSQPGACCLQQPLQSPAFACTPLAGLALPAPAAASGDVLSTRPWRQASLATELNVLPHLPAS$ 

## 1634/2682 FIGURE 1486

AGTCGGAGGGGTGGCAGTGAGCGGCGGCAGAGGCTACGGGGCTCGGTTTGGCTGACTGGGGAGTCGGCAGGCGG GTTACAGGCGCCGCTGTCCACCTCTACTCCGGGGTCTAGTACAGCGCTGGCGCTACGGCAAGGTCTGCCTTGCGCT  ${\tt ACAACGTGATCCGCTGGTTTGGAGTGGGCAGGAATGATATCGCCACCGTCTCCATCTGTAAGAAGTGCATTTACC}$ CCAAGCCAGCCCGAACACCACTGCAGCATCTGCAACAGGTGTGTGCTGAAGATGGATCACCACTGCCCCTGGC TAAACAATTGTGTGGGCCACTATAACCATCGGTACTTCTTCTTCTTCTTCTTCTTCATGACTCTGGGCTGTGTCT ACTGCAGCTATGGAAGTTGGGACCTTTTCCGGGAGGCTTATGCTGCCATTGAGACTTATCACCAGACCCCACCAC CCACCTTCTCCTTTCGAGAAAGGATGACTCACAAGAGTCTTGTCTACCTCTGGTTCCTGTGCAGTTCTGTGGCAC TTGCCCTGGGTGCCCTAACTGTATGGCATGCTGTTCTCATCAGTCGAGGTGAGACTAGCATCGAAAGGCACATCA ACAAGAAGGAGAGACGTCGGCTACAGGCCAAGGGCAGAGTATTTAGGAATCCTTACAACTACGGCTGCTTGGACA ACTGGAAGGTATTCCTGGGTGTGGATACAGGAAGGCACTGGCTTACTCGGGTGCTCTTACCTTCTAGTCACTTGC  $\tt CTGGACTGTGTCAGCCACGACTCGAGCACTCATTCTGCTCCCTATGTTATTTCAAGGGCCTCCAAGGGCAGCTTT$ TTTTACCACTGCAGAAGAAGACACAATGTGGAGAAATCTTAGGACTGACATCCCTTTACTCAGGCAAACAGAAG TTCCAACCCCAGACTAGGGGTCAGGCAGCTAGCTACCTTGCCCAGTGCTGACCCGGACCTCCTCCAGGATA CAGCACTGGAGTTGGCCACCACCTCTTCTACTTGCTGTCTGAAAAAACACCTGACTAGTACAGCTGAGATCTTGG CTTCTCAACAGGGCAAAGATACCAGGCCTGCTGCTGAGGTCACTGCCACTTCTCACATGCTGCTTAAGGGAGCAC 

# 1635/2682 FIGURE 1487

MRGQRSLLLGPARLCLRLLLLLGYRRRCPPLLRGLVQRWRYGKVCLRSLLYNSFGGSDTAVDAAFEPVYWLVDNV IRWFGVGRNDIATVSICKKCIYPKPARTHHCSICNRCVLKMDHHCPWLNNCVGHYNHRYFFSFCFFMTLGCVYCS YGSWDLFREAYAAIETYHQTPPPTFSFRERMTHKSLVYLWFLCSSVALALGALTVWHAVLISRGETSIERHINKK ERRRLQAKGRVFRNPYNYGCLDNWKVFLGVDTGRHWLTRVLLPSSHLPHGNGMSWEPPPWVTAHSASVMAV

#### 1636/2682 FIGURE 1488A

 ${\tt GAGCCGGTGGCGCAGGTGTCGGGGTCCTCGAGCGCCCAGCCTGGGAGC\underline{{\tt ATG}}{\tt ATG}{\tt ATG}{\tt TGTGGACAAGCTGCTGGACGAC}$ AGCCGCGGCGGAGAGGGGCTGCGGGACGCGGCGGCGGCTGCGGCCTCATGACCAGCCCGCTCAACCTGAGCTAC TTCTACGGCGCGTCGCCGCCGCCGCCGCCGCCCCCGGCGCCCAGCTGCTGCTCTGGGTCTTGGGCCCCTCGGCG CCCGGCTCGCCCGGCTCCGACTCCTCCGACTTCTCCTCTGCCTCGTCGCTCCTCCTGCGCGCCCTTGGAGTCC CCCTTTCAAGGTGTTCGGGTAAAGAACTCAGTGAAGGAACTCCTGTTGCACATCCGAAGTCATAAACAGAAGGCT TCTGGCCAAGCTGTGGATGATTTTAAGACACAAGGTGTGAACATAGAACAGTTCAGAGAATTGAAGAACACAGTA TCATACAGTGGGAAAAGGAAAGGGCCCGATTCGTTGTCTGATGGACCTGCTTGCAAAAGGCCAGCTCTGTTGCAT TCCCAATTTTTGACACCACCTCAAACACCCAACGCCCGGGGAGAGCATGGAAGATGTTCATCTCAATGAACCCAAA GTTCAAGTTAGCTGGCTGAACCCCGTGGTGGTCCCTCAGAGCTCCCCCGCAGAGCAGTGTCAGGACTTCCATGGA GGGCAGGTCTTTTCTCCACCTCAGAAATGCCAACCATTCCAAGTCAGGGGCTCCCAACAAATGATAGACCAGGCT TCCCTGTACCAGTATTCTCCACAGAACCAGCATGTAGAGCAGCAGCCACACTACACCCACAAACCAACTCTGGAA TACAGTCCTTTTCCCATACCTCCCCAGTCCCCCGCTTATGAACCAAACCTCTTTGATGGTCCAGAATCACAGTTT TGCCCAAACCAAAGCTTAGTTTCCCTTCTTGGTGATCAAAGGGAATCTGAGAATATTGCTAATCCCATGCAGACT TCCTCCAGTGTTCAGCAGCAAAATGATGCTCACTTGCACAGCTTCAGCATGATGCCCAGCAGCGCCTGTGAGGCC ATGGTGGGGCACGAGATGGCCTCTGACTCTTCAAACACTTCACTGCCATTCTCAAACATGGGAAATCCAATGAAC ACCACACAGTTAGGGAAATCACTTTTTCAGTGGCAGGTGGAGCAGGAAGAAAGCAAATTGGCAAATATTTCCCAA GACCAGTTTCTTTCAAAGGATGCAGATGGTGACACGTTCCTTCATATTGCTGTTGCCCAAGGGAGAAGGGCACTT TCCTATGTTCTTGCAAGAAAGATGAATGCACTTCACATGCTGGATATTAAAGAGCACAATGGACAGAGTGCCTTT CAGGTGGCAGTGGCCAATCAGCATCTCATTGTGCAGGATCTGGTGAACATCGGGGCACAGGTGAACACCACA GACTGCTGGGGAAGAACACCTCTGCATGTGTGTGCTGAGAAGGGCCACTCCCAGGTGCTTCAGGCGATTCAGAAG GTCATAGCCCACAATGCTGTGGTCCATGAACTCCAGAGAAATCAACAGCCTCATTCACCTGAAGTTCAGGAGCTT TTACTGAAGAATAAGAGTCTGGTTGATACCATTAAGTGCCTAATTCAAATGGGAGCAGCGGTGGAAGCGAAGGAT CGCAAAAGTGGCCGCACAGCCCTGCATTTGGCAGCTGAAGAAGCAAATCTGGAACTCATTCGCCTCTTTTTGGAG CTGCCCAGTTGCCTGTCTTTTGTGAATGCAAAGGCTTACAATGGCAACACTGCCCTCCATGTTGCTGCCAGCTTG CAGTATCGGTTGACACAATTAGATGCTGTCCGCCTGTTGATGAGGAAGGGAGCAGACCCAAGTACTCGGAACTTG GAGAACGAACAGCCAGTGCATTTGGTTCCCGATGGCCCTGTGGGAGAACAGATCCGACGTATCCTGAAGGGAAAG ATTTAGTTCACTATTATATAGTGGGTTATATTAAAAGAAAAGAAGAAAAATATCTAATTTCTCTTGGCAGATTTG CATATTTCATACCCAGGTATCTGGGATCTAGACATCTGAATTTGATCTCAATGGTAACATTGCCTTCAATTAACA GTAGCTTTTGAGTAGGAAAGGACTTTGATTTGTGGCACAAAACATTATTAATATAGCTATTGACAGTTTCAAAGC AGGTAAATTGTAAATGTTTCTTTAAGAAAAAGCATGTGAAAGGAAAAAGGTAAATACAGCATTGAGGCTTCATTT GGCCTTAGTCCCTGGGAGTTACTGGCGTTGGACAGGCTTCAGTCATTGGACTAGATGAAAGGTGTCCATGGTTAG AATTTGATCTTTGCAAACTGTATAATTGTTATTTTTTGTCCTTAAAAATATTGTACATACTTGGTTGTTAACAT GGTCATATTTGAAATGTATAAGTCCATAAAATAGAAAAGAACAAGTGAATTGTTGCTATTTAAAAAAATTTTTACA ATTCTTACTAAGGAGTTTTTATTGTGTAATCACTAAGTCTTTGTAGATAAAGCAGATGGGGAGTTACGGAGTTGT TCCTTTACTGGCTGAAAGATATATTCGAATTGTAAAGATGCTTTTTCTCATGCATTGAAATTATACATTATTTGT AGGGAATTGCATGCTTTTTTTTTTTTTCTCCCGAGACAGGGTCTTGCTCTGGCGCCCAGGCTGGAGTACAGTGG CATGATCTTGGCTCACTTCAGCCTTGACTTGGGCTCAAGTGATCCTCCTACCTGAGCCTTCTGAGTAACTGGGAC GTCTTGAACTCCTGAGCTCATGCCATCTGCCTGCCTTAGTCTCCCAAAATGCTGGGATTACAGGAGTGAGCCACC ATGCCCGGCTGGCAGTTGCATGGAAGAGAACACCTCTTTATGGCTTACCCTCTAGAATTTCTAATTTATGTGTTC TGTTGAAATTTTTGTTTTTTTACCTTTATTGAAACAACAAAAGTCAGTATTGAAACATATCTTCCTGTTTTCTG TATTAACATTATTTTGCTTGCCGCTGGCATGCCTGAGGAATGTATTTGGCTTTGATTACACACTAAGTTTTTGTA

# 1637/2682 FIGURE 1488B

#### 1638/2682 FIGURE 1489

MIVDKLLDDSRGGEGLRDAAGGCGLMTSPLNLSYFYGASPPAAAPGACDASCSVLGPSAPGSPGSDSSDFSSASS VSSCGAVESRSRGGARAERQPVEPHMGVGRQQRGPFQGVRVKNSVKELLLHIRSHKQKASGQAVDDFKTQGVNIE QFRELKNTVSYSGKRKGPDSLSDGPACKRPALLHSQFLTPPQTPTPGESMEDVHLNEPKQESSADLLQNIINIKN ECSPVSLNTVQVSWLNPVVVPQSSPAEQCQDFHGGQVFSPPQKCQPFQVRGSQQMIDQASLYQYSPQNQHVEQQP HYTHKPTLEYSPFPIPPQSPAYEPNLFDGPESQFCPNQSLVSLLGDQRESENIANPMQTSSSVQQQNDAHLHSFS MMPSSACEAMVGHEMASDSSNTSLPFSNMGNPMNTTQLGKSLFQWQVEQEESKLANISQDQFLSKDADGDTFLHI AVAQGRRALSYVLARKMNALHMLDIKEHNGQSAFQVAVAANQHLIVQDLVNIGAQVNTTDCWGRTPLHVCAEKGH SQVLQAIQKGAVGSNQFVDLEATNYDGLTPLHCAVIAHNAVVHELQRNQQPHSPEVQELLLKNKSLVDTIKCLIQ MGAAVEAKDRKSGRTALHLAAEEANLELIRLFLELPSCLSFVNAKAYNGNTALHVAASLQYRLTQLDAVRLLMRK GADPSTRNLENEQPVHLVPDGPVGEQIRRILKGKSIQQRAPPY

#### 1639/2682 FIGURE 1490

# 1640/2682 FIGURE 1491

MSRFKFIDIGINLTDPMFRGIYRGVQKHQDDLQDVIGRAVEIGVKKFMITGGNLQDSKDALHLAQTNGMFFSTVG CHPTRCGEFEKNNPDLYLKELLNLAENNKGKVVAIGECGLDFDRLQFCPKDTQLKYFEKQFELSEQTKLPMFLHC RNSHAEFLDIMKRNRDRCVGGVVHSFDGTKEAAAALIDLDLYIGFNGCSLKTEANLEVLKSIPSEKLMIETDAPW CGVKSTHAGSKYIRTAFPTKKKWESGHCLKDRNEPCHIIQILEIMSAVRDEDPLELANTLYNNTIKVFFPGI

#### 1641/2682 FIGURE 1492

CGGAGCCCCTCGGCGGCCCGGCCCAGGACCCGCCTAGGAGCGCAGGAGCCCCAGCGCAGAGACCCCAACGCCG AGACCCCGCCCGGCCCGCCGCGCTTCCTCCCGACGCAGAGCAAACCGCCCAGAGTAGAAGATGGATTGGGGC ACGCTGCAGACGATCCTGGGGGGGTGTGAACAAACACTCCACCAGCATTGGAAAGATCTGGCTCACCGTCCTCTTC ATTTTTCGCATTATGATCCTCGTTGTGGCTGCAAAGGAGGTGTGGGGAGATGAGCAGGCCGACTTTGTCTGCAAC ACCCTGCAGCCAGGCTGCAAGAACGTGTGCTACGATCACTACTTCCCCATCTCCCACATCCGGCTATGGGCCCTG AAGTTCATCAAGGGGGAGATAAAGAGTGAATTTAAGGACATCGAGGAGATCAAAACCCAGAAGGTCCGCATCGAA GGCTCCCTGTGGTGGACCTACACAAGCAGCATCTTCTTCCGGGTCATCTTCGAAGCCGCCTTCATGTACGTCTTC TATGTCATGTACGACGCCTTCTCCATGCAGCGGCTGGTGAAGTGCAACGCCTGGCCTTGTCCCAACACTGTGGAC TGCTTTGTGTCCCGGCCCACGGAGAAGACTGTCTTCACAGTGTTCATGATTGCAGTGTCTGGAATTTGCATCCTG CTGAATGTCACTGAATTGTGTTATTTGCTAATTAGATATTGTTCTGGGAAGTCAAAAAAGCCAGTT**TAA**CGCATT GCCCAGTTGTTAGATTAAGAAATAGACAGCATGAGAGGGATGAGGCAACCCGTGCTCAGCTGTCAAGGCTCAGTC GCCAGCATTTCCCAACACAAAGATTCTGACCTTAAATGCAACCATTTGAAACCCCTGTAGGCCTCAGGTGAAACT CCAGATGCCACAATGGAGCTCTGCTCCCCTAAAGCCTCAAAACAAAGGCCTAATTCTATGCCTGTCTTAATTTTC TTTCACTTAAGTTAGTTCCACTGAGACCCCAGGCTGTTAGGGGGTTATTGGTGTAAGGTACTTTCATATTTTAAAC AGAGGATATCGGCATTTGTTTCTCTGAGGACAAGAGAAAAAAGCCAGGTTCCACAGAGGACACAGAGAAAGG TTTGGGTGTCCTCCTGGGGTTCTTTTTGCCAACTTTCCCCACGTTAAAGGTGAACATTGGTTCTTTCATTTGCTT TGGAAGTTTTAATCTCTAACAGTGGACAAAGTTACCAGTGCCTTAAACTCTGTTACACTTTTTGGAAGTGAAAAC TTTGTAGTATGATAGGTTATTTTGATGTAAAGATGTTCTGGATACCATTATATGTTCCCCCTGTTTCAGAGGCTC AGATTGTAATATGTAAATGGTATGTCATTCGCTACTATGATTTAATTTGAAATATGGTCTTTTGGTTATGAATAC TTTGCAGCACAGCTGAGAGGCTGTCTGTTGTATTCATTGTGGTCATAGCACCTAACAACATTGTAGCCTCAATCG AGTGAGACAGACTAGAAGTTCCTAGTGATGGCTTATGATAGCAAATGGCCTCATGTCAAATATTTTAGATGTAATT TTGTGTAAGAAATACAGACTGGATGTACCACCAACTACTGCTGTAATGACAGGCCTGTCCAACACATCTCCCTT TTCCATGACTGTGGTAGCCAGCATCGGAAAGAACGCTGATTTAAAGAGGTCGCTTGGGAATTTTATTGACACAGT ACCATTTAATGGGGAGACAAAATGGGGCAGGGGAGGAGAGTTTCTGTCGTTAAAAACAGATTTGGAAAGACT ATTTTTTAAGTGAAAATATAACTAATAACATGTGAAAAGAATAGAAGCTAAGGTTTAGATAAATATTGAGCAGAT CTATAGGAAGATTGAACCTGAATATTGCCATTATGCTTGACATGGTTTCCAAAAAATGGTACTCCACATACTTCA GTGAGGGTAAGTATTTTCCTGTTGTCAAGAATAGCATTGTAAAAGCATTTTGTAATAATAAAGAATAGCTTTAAT AAAAAAAAAAA

# 1642/2682 FIGURE 1493

MDWGTLQTILGGVNKHSTSIGKIWLTVLFIFRIMILVVAAKEVWGDEQADFVCNTLQPGCKNVCYDHYFPISHIR LWALQLIFVSTPALLVAMHVAYRRHEKKRKFIKGEIKSEFKDIEEIKTQKVRIEGSLWWTYTSSIFFRVIFEAAF MYVFYVMYDGFSMQRLVKCNAWPCPNTVDCFVSRPTEKTVFTVFMIAVSGICILLNVTELCYLLIRYCSGKSKKP

#### 1643/2682 FIGURE 1494

CGTTGCCGGCAGCCCCTGAGGGCAGCGGGAGACAAGACCCGGCGACCTCGCGCATCCCTCGAGCCGCCACGCG GCTGCTTCACCTCTTCGCCGGCGGGTGTGGAGGCACAGTTGGTGCTATTTTCACTTGTCCACTAGAAGTCATTAA GACACGGTTGCAGTCTTCAAGATTAGCTCTCCGGACAGTCTACTATCCTCAGGTTCATCTGGGGACCATTAGTGG AGCTGGAATGGTGAGACCAACATCCGTGACACCTGGACTCTTTCAGGTTCTGAAGTCGATCTTGGAGAAAGAGGG TTACTCCAAAGCCAAAGAGCAATTTAATGGCATTTTCGTGCCTAACAGCAATATTGTGCATATTTTCTCAGCTGG AGTGAGGGGCTCTAAGCAGATGAATACACTCCAGTGTGCTCGTTACCGTTACCAGACCGAAGGCATTCGTGGCTT CTATAGAGGATTAACTGCCTCGTATGCTGGAATTTCCGAAACTATAATCTGCTTTTGCTATTTATGAAAGTTTAAA GAAGTATCTGAAAGAAGCTCCATTAGCCTCTTCTGCAAATGGGACTGAGAAAAATTCCACAAGTTTTTTTGGACT TATGGCAGCTGCTCTTTCTAAGGGCTGTGCCTCCTGCATTGCTTATCCACACGAAGTCATAAGGACGAGGCT CCGGGAAGAGGCCACCAAGTACAAGTCTTTTGTCCAGACGGCGCCCTGGTGTTCCGGGAAGAAGGCTACCTTGC  $\tt CTTTTATAGAGGACTGTTTGCCCAGCTTATCCGGCAGATCCCAAATACTGCCATTGTGTTGTCTACTTATGAGTT$  $\verb|CTCTAGAGAATTTTTTTTCCCCATTGATGTTTAGAAAGTTTGAGACTGAAACAGGAAAGGCCATAAAATATCTGG| \\$ TTCATATCACCTGTTGGACATTTCCTTTTGGATTCATGCTTTCTGGAAGGTTTAAATTCATTAACGTTAATAGTT AATTATAACTTTTTTTTAACTTAAGAGGATTCAGGGTTAAGCACCAACTAAATTAAATCATGCTATTTAATTTAA 

## 1644/2682 FIGURE 1495

 $\label{thm:composition} $$ \operatorname{MATGGQQKENTLLHLFAGGCGGTVGAIFTCPLEVIKTRLQSSRLALRTVYYPQVHLGTISGAGMVRPTSVTPGLF QVLKSILEKEGPKSLFRGLGPNLVGVAPSRAVYFACYSKAKEQFNGIFVPNSNIVHIFSAGSAAFITNSLMNPIW $$ MVKTRMQLEQKVRGSKQMNTLQCARYVYQTEGIRGFYRGLTASYAGISETIICFAIYESLKKYLKEAPLASSANG TEKNSTSFFGLMAAAALSKGCASCIAYPHEVIRTRLREEGTKYKSFVQTARLVFREEGYLAFYRGLFAQLIRQIP $$ NTAIVLSTYELIVYLLEDRTQ$$$ 

## 1645/2682 FIGURE 1496

# FIGURE 1497<sub>.</sub>

 $\label{thm:condition} \begin{tabular} MVRAGAVGAHLPASGLDIFGDLKKMNKRQLYYQVLNFAMIVSSALMIWKGLIVLTGSESPIVVVLSGSMEPAFHR\\ GDLLFLTNFREDPIRAGEIVVFKVEGRDIPIVHRVIKVHEKDNGDIKFLTKGDNNEVDDRGLYKEGQNWLEKKDV\\ VGRARGFLPYVGMVTIIMNDYPKFKYALLAVMGAYVLLKRES\\ \end{tabular}$ 

#### 1647/2682 FIGURE 1498

 ${\tt TTTAAGGTCAAAGGTGAGAAGGTCAGGAAGAAC} \underline{{\tt ATG}} {\tt GCCTGGCCAAATGTTTTCAAAGAGGGTCTCTGCT}$ GTCCCAGTTCAGCCATCATCATGTTGTAGTGTTCCTGCTCACTTTCTTCAGTTATTCGTTGCTCCATGCTTCACG AAAAACATTTAGCAATGTCAAAGTCAGTATCTCTGAGCAGTGGACCCCAAGTGCTTTTAACACGTCAGTTGAGCT GCCTGTGGAGATCTGGAGCAGCAACCATTTGTTCCCCAGTGCAGAAAAGCGACTCTTTTCCTCGGCACACTGGA TACCATTTTCCTCTTCTCCTATGCTGTGGGCCTATTCATCAGTGGCATCGTTGGGGATCGGTTGAATTTGCGATG GGTTCTGTCTTTTGGCATGTGCTCTTCTGCATTAGTGGTGTTTTGTCTTTGGTGCGCTCACAGAATGGCTGCGTTT CTACAACAAATGGCTGTACTGCTGCCTGTGGATTGTGAACGGCCTGCTGCAGTCCACTGGTTGGCCCTGTGTGGT TGCTGTTATGGGCAACTGGTTTGGGAAAGCCGGACGAGGAGTTGTTTTTGGTCTCTGGAGTGCCTGTGCTTCGGT GGGCAACATTTTGGGAGCGTGCCTAGCTTCTTCTGTTCTTCAGTATGGTTATGAGTATGCCTTTCTGGTGACGGC GTCTGTGCAGTTTGCTGGTGGGATCGTTATCTTCTTTGGACTCCTGGTGTCACCAGAAGAAATTGGTCTCTCGGG TGAGCCGAATTATTCAATCCAAGATGATAGTTCTGTTGCCCAAGTCAAGGCGATAAGCTTCTACCAGGCATGTTG CCTTCCTGGAGTCATACCGTACTCACTGGCCTACGCCTGCTTGAAGTTAGTGAATTACTCCTTCTTCTTGGCT CCCCTTTTATCTGAGTAACAACTTCGGCTGGAAGGAGGCGGAAGCCGACAAGCTGTCCATTTGGTACGACGTTGG TCGAGTCTGCCCTAATTTGGGTTTGTCTAGGAGCTCCAGCCTGATCTTGGATTGTCAGGCGTCTCTCAACACTGC  ${\tt CAGCCACCTGAGATGC}$   ${\tt CCAGCCAGTGAAGGCTGCACTAGTTTTCTACACTACAGGAATTACTGTTGATGATTTT}$ TTGCTGTTGTTTCATGAATGTGCCGAGTGACTTCTGACTCTGCCAGCATCTTTGACCTCTGACTCTGCCCGCGTC TTTGTTTGGCCTATTGAGGTTTAGCGTTTTAACCTTAACTGTTGTTTTGGACTTGAACTTTCTCTAGCCTTGAAA ATGGAGTGAACAGGAGGCAAAGCCACGCGTGGTTTGTGTTGGTGGTATGTTCCACAAATGGAAGAGATCATTGCA TTTTGCTTTGGTAATGAGTTTACAGAGAGTGGGTCATCTTTGAAGCATCAAATCCTGATCAAATGCTCAAGCTGG ACCGAGCTGCAAGCCTGCCTTGGACAAAGAATCCCTCTGTTCACTGTGGGGAAAGATCACACTACATGCCTGT TGATTGGCTCAGTCACTCTGTGTCTGATCTAAACGTCATTCAGCCCTAGAAGCATGAATTGCTTCAAATTATTGT CAACTTGTTCTCTTCCATTTCATTCAAATTAACTTTGACTCCTGGAAGTATTGAGTCTTCCTTTCAAGGACCAT AAGGTACATCAGTTATCTTGAACATTCTGACGTGTAAAGGACCATAAGGTACATCATTTATCTTGAACATTCCGA CGTGTAACTCACAGCCGAAGCACTCCATCCCAGATTTGTTGTCTGGGAACTTTAGGATCCTCTAGGAAGCTAATC TGCTTAGTCTATTTTTAGAGGATTGATCTCTGGCACAACCAGCTTCCTGGAGTTACCTCAGCAGAAGACTAGAAT TAGAGAAAAGGGAAAGACCTTTTCTTCTAGTAAGTGTCAAGTACAGATGCTCTTTGACTTATGATGGGGTTATGT CCCAGTAAACCCATTGGAAGTCAAATGCATTTAATACCCCTGACTGGACACCACAGCTTAGCCTCGTCCACCCTA AATGTACTCAGAACACTTAGAATTGCCCACAGTTGGGCAGAATCATCTAACACAAACTCTATTTTATAATCGAGT GTTGAATATATCATGTAATTTATTGAATATTGTACATTATGTTGAAATTGCAACCATTTCACACCATTGTAAAGT CCAAAAATCAGAAGCTGAGGACTGTCTGTACATGACATTGAATCACATGAATGGATTACTAGGGCCTGAGGGGTG TCCGTTCTTTAGAAAAATGTAGAGTATATATCTTCAGGGCTGTGAATTCCATACTAGTTATCAATATTTTAAG ATCATTCTGTATATACATATTTTAAATTATGCAAGCAAACTAGGAGGAGAATGTGCAATTTTGAGGGATACCTAA TTTGCATTCGGTTAGGGGATATTTTTCAACCTCTTGCTTTATACTCTGATATGGGGTGTGTTTATGAACTTGTTA ATGTTATTTAATCATGCAGATTTCCAATCAGTGTATTGCTCATTTACTGACAAAAAGGGAAAATACGAAAACACAG 

## 1648/2682 FIGURE 1499

MAWPNVFQRGSLLSQFSHHHVVVFLLTFFSYSLLHASRKTFSNVKVSISEQWTPSAFNTSVELPVEIWSSNHLFP SAEKATLFLGTLDTIFLFSYAVGLFISGIVGDRLNLRWVLSFGMCSSALVVFVFGALTEWLRFYNKWLYCCLWIV NGLLQSTGWPCVVAVMGNWFGKAGRGVVFGLWSACASVGNILGACLASSVLQYGYEYAFLVTASVQFAGGIVIFF GLLVSPEEIGLSGIEAEENFEEDSHRPLINGGENEDEYEPNYSIQDDSSVAQVKAISFYQACCLPGVIPYSLAYA CLKLVNYSFFFWLPFYLSNNFGWKEAEADKLSIWYDVGGIIVFSVSDPGQARMDVGFLLFHSHDKLYNCVYLAIN SEGNILSRAKETGSHIEGVTGARETERTMSATSGPLGLRVCPNLGLSRSSSLILDCQASLNTASHLRC

#### 1649/2682 FIGURE 1500

GTCAGGTGGCGTTTGCTGTGGCGGCTAGGCCCGCGTGCGCTGGAGACCTCCGCGCTGGCCCCCGCGAGCCTCCTG CGGGATACGCTCTTCGAAGTCCGCAGAAGACTTAACTGATGGTTCATATGATGATGTTCTAAATGCTGAACAACT TCAGAAACTCCTTTACCTGCTGGAGTCAACGGAGGATCCTGTAATTATTGAAAGAGCTTTGATTACTTTGGGTAA CCATTCCAACCAGAGTATTAAAGAGAAAGCTTTAAATGCACTAAATAACCTGAGTGTGAATGTTGAAAATCAAAT CAAGATAAAGATATACATCAGTCAAGTATGTGAGGATGTCTTCTCTGGTTCTCTGAACTCTGCTGCAGCTGGC TGGACTGACATTGTTGACAAACATGACTGTTACCAATGACCACCAGCACATGCTTCACAGTTACATTACAGACCT GTTCCAGGTGTTACTTACTGGAAATGGAAACACGAAGGTGCAAGTTTTGAAACTGCTTTTGAATTTGTCTGAAAA TCCAGCCATGACAGAAGGACTTCTCCGTGCCCAAGTGGATTCATCATTCCTTTCCCTTTATGACAGCCACGTAGC AAAGGAGATTCTTCTTCGAGTACTTACGCTATTTCAGAATATAAAGAACTGCCTCAAAATAGAAGGCCATTTAGC TGTGCAGCCTACTTTCACTGAAGGTTCATTGTTTTTCCTGTTACATGGAGAAGAATGTGCCCAGAAAATAAGAGC TTTAGTTGATCACCATGATGCAGAGGTGAAGGAAAAGGTTGTAACAATAATACCCAAAATC ${f TGA}$ TTGGTCATATT TTTCCAAAGAGTAATGCAGTCTGGATATAAATGTATTTTCTGTCTTCCTTATAAGGGGATTCTCCCAGCTGCTAA 

#### 1650/2682 FIGURE 1501

MGGPRGAGWVAAGLLLGAGACYCIYRLTRGRRRGDRELGIRSSKSAEDLTDGSYDDVLNAEQLQKLLYLLESTED PVIIERALITLGNNAAFSVNQAIIRELGGIPIVANKINHSNQSIKEKALNALNNLSVNVENQIKIKIYISQVCED VFSGSLNSAVQLAGLTLLTNMTVTNDHQHMLHSYITDLFQVLLTGNGNTKVQVLKLLLNLSENPAMTEGLLRAQV DSSFLSLYDSHVAKEILLRVLTLFQNIKNCLKIEGHLAVQPTFTEGSLFFLLHGEECAQKIRALVDHHDAEVKEK VVTIIPKI

## 1651/2682 FIGURE 1502

# 1652/2682 FIGURE 1503

 ${\tt MENHKSNNKENITIVDISRKINQLPEAERNLLENGSVYVGLNAALCGLIANSLFRRILNVTKARIAAGLPMAGIPFLTTDLTYRCFVSFPLNTGDLDCETCTITRSGLTGLVIGGLYPVFLAIPVNGGLAARYQSALLPHKGNILSYWIRTSKPVFRKMLFPILLQTMFSAYLGSEQYKLLIKALQLSEPGKEIH$ 

#### 1653/2682 FIGURE 1504

# 1654/2682 FIGURE 1505

 ${\tt CQHLTFPPTLLLLHSRLSLCLSHFLPSPHPPQCTEEGNRVQTHAAPVLRREGKPRREAAMNVDHEVNLLVEEIH} \\ {\tt RLGSKNADGKLSVKFGVLFRDDKCANLFEALVGTLKAAKRRKIVTYPGELLLQGVHDDVDIILLQD} \\$ 

#### 1655/2682 FIGURE 1506A

CCTGCGGCTCCCCGGCTTTCGGAGCCCGGGGGCGGCCTGTGGCGCGGAGCCCGGGCCGGACTGCGCCTCTTT GGACCTTGAGGGGAAACATGCGTTTGCSKWGGATCRWTTGAAATTCTGAGKYTRGGATMCSMGSCCGCCYGCCTG MYTCKKCCGMSSCGCGGGYTTTTTCSTATTTTTCCTTTTGCTTTTTTCCTTTTCCCTCCCGGGTCTCCTTTTT GACTCCCTCCCCTTTATGCTCGCCCAGCCCTCCCCTGCTGCTGAGAAGTGGGGGAGGGTCTCGGCCTCCAGGT TCCCGCCCCACCGGGGCCGGCGAGCATGGGGGGCAAGCAGAGCACGGCGGCCCGCTCCCGGGGCCCCTTCCCG GGGGTCTCCACCGATGACAGCGCCGTGCCGCCGCGGGAGGGGCGCCCCATTTCGGGCACTACCGGACGGGCGGC GGGGCCATGGGGCTGCGCAGCCCCTCGGTCAGCTCGGTGGCATGGGCATGGACCCCAGCACGCCCGGGGG GTGCCCTTTGGCCTCTACACCCCCGCCTCCCGGGGCACCGGCGAGAGGGCGCCCGGCGGCGGGGGGGTCT GCGTCCGACTCCACCTATGCCCATGGCAATGGTTACCAGGAGACGGGCGGCGGTCACCATAGAGACGGGATGCTG TACCTGGGCTCCCGAGCCTCGCTGGCGGATGCTCTACCTCTGCACATCGCACCCAGGTGGTTCAGCTCGCATAGT GGTTTCAAGTGCCCCATTTGCTCCAAGTCTGTGGCTTCTGACGAGATGGAAATGCACTTTATAATGTGTTTTGAGC AAACCTCGCCTCTCCTACAACGATGATGTGCTGACTAAAGACGCGGGTGAGTGTGTGATCTGCCTGGAGGAGCTG CTGCAGGGGGACACGATAGCCAGGCTGCCTGCCTGTGCATCTATCACAAAAGCTGCATAGACTCGTGGTTTGAA GCGCCCTGCTCCAGGGAGGAGGCTCACCGGACCCTGGGGCAGAGCTGAGCTTGGGACACCAGCGGGAACAGGGC ACCCCTTCTGCACTGACTTCCAGATCATGGTTCTCCCTTCCTCCTGAGGACACCAAATTGGATGAGAGCAAGTT TGAGAGAAGAATGAATCAACTGCTATCCTTCCCCTCACCCCTCAGCCCAGGAGGGAAAGGGCATTTTCTTTTTCA ACTGGTGTTTTCCCTCGTGATGTTTACAGCTTGCTGTTTGCTGCCCAGCCATAACCCACTCAGTGACAGACGAAC ACAGCTAAGGCCTCGCTGCCAGCCTTCTGACGGCGGGCGAGCACACGGTCTCTTCCCCTGCCCCAACTGGCCCTC CTCCCCTTGAGACCCTAATATCTTGACTTCATTGCCAAAAAACAACCCATTGAGAACTTTCTTCCTACTGATCCC ATCTCTTTTCCCTTCTTTCCTCCTGGTTCCGGTCAGTTCAGAGGATTTAACAATCACAAGTGTCCTGCAAAAATG TATGTACAGCTACCCCTGTTTTCAGGCACTATGTTTGAGAACATTTTAGCCATTGATGTTCACACGTGGCATCAG AAAGCTTGGGAGAAAAGCTTTCTTCATTAGTCAAGGTGTTTTGATATGGTATTAAAATGTCTAATAAAAGATGGC ACTGCGTGATTTTATTTTAATGRAAGTGTTATACAATCAAGAAATGGGGGCAAGGGSCTGCCCCCACTCCCTCA CCTACCTCCTTAGCATTCCTTCAGGCTGCTACTCGGGGCTCCAGGTGTGTGAATTGGTCCTCAGATAGTCAGGCC TGGGTGGAGGGAGTGGCAAGTCARGCGTGCCTCCTACAAGCTTCCTAACCTCTTAAGCATCATGGAACCAGTCAG CCCTCTGTGGAGTCATTGTGCCGGACCTCTGAAAAGATCTGCAGGGGCCAARATGTTGCARCCACCSGAGGCTGC ARGGWTYGTGGGTTCTTCCAGGTGTGGGCCCAGCCCCCCTCCTTYCAGCCTTTGCTCCCCATCCCACGTTCCACT CKCCCTGCCTGGTGKTTGCGTCTCAGTGCTTGAMTCACGGGCATGCTTCATTGAGGCCCAGGAAGAGGCCCTGGT TTGGGGCTGTGCCAGCTTCAGAGCCCTTGAACCAGAACCACTGCTCAGGCTCACAAAAGTTGGCAAAATGCGGG CTGGGCAGGCAGCTCGGGGCAGGGAGCAGCAGTGCAGGCCTGTGXTCCCCGTGCCCAGCGGGYCSCGGAG CAGCATTCCAGAGCCTCCTGCAGAGCCAGCGAAGGAAAGCTCTAGAGGGAGACGACTCCACCGCCTCTCTGCTCT GACCCTTCTCAGGCCCGCCTGATGTGCTGGACCATCCCCCTGCTGCCACGGCCCCTGGCTCCGCAGTCACCCTCC ATCAGATGCTTCCAGAAGCACCTACTCTGTGCAAGGGCATTCACAACAGGCCAGTGGGCAAACGTGAGCCAGGGC CAGCGGAGAAACACTAAAGAAGACTTCGGTGGTTCAGAGCCTGGGTCTCAGCGCGGGACCCGTCTGGGGTTGAAG ACCTTKGGGGCTKTTGTGAGTYGGTGGCAGGAACGTGGGCTYTAGAMTGTGCATTCAGGCTCTCCTACTTGGCAG AATGATCTTGGGGAAACGACTTCATCTGAACTTCAGATATTTCACATGTGAAGCGGGGACAAAACCATGCAGCTC AGAGGTCCCTGTGGGGGGGTGGGGGGGCTCCCTGCAGGTCTTGGCACATGCACAGCAGGCTCCCCATAGCTTTGT CACCACAAAGGGCACTGTTCTATTCACAGCACCTCCTGCTTCTGCCTGGCAACTGTGTCTCCCTGTGCTATATTT AATTCCACCAGCAAAGCTGKCGGAGGCAGGGCCCAGCCTGAAAGGAGATCTCCTTGCCTGACCCCTGGGACCTGG GAAATGGAGGCTTCATGTGCCCGCCTTGSSKYTTAAAGCCTGCTGGCTTTGGCAGTGCCATGGGTGAGCCGAGCA GCTGTGAGGTGGGTGGGCCAGGCTGTAGCCACGCCGGGTGCTATTCCAGGCTCTAGGGGCTGGTGCTCATCCCC ACCCCCAGCGACTTCCGTCCTACCTGGCATGCTGCAGCCCTCTGCCGGCTGTGGTGTCCTGAATTTGGACCCAGG TTGCCTGCTCTTGTTGTGGGGGTTGGGGCTGTCTGTGTTTCCCAGGTGGAGCTCATGTTTGTGATCCTCT

## 1656/2682 FIGURE 1506B

# 1657/2682 FIGURE 1507

MGGKQSTAARSRGPFPGVSTDDSAVPPPGGAPHFGHYRTGGGAMGLRSRSVSSVAGMGMDPSTAGGVPFGLYTPA SRGTGDSERAPGGGGSASDSTYAHGNGYQETGGGHHRDGMLYLGSRASLADALPLHIAPRWFSSHSGFKCPICSK SVASDEMEMHFIMCLSKPRLSYNDDVLTKDAGECVICLEELLQGDTIARLPCLCIYHKSCIDSWFEVNRSCPEHP

#### 1658/2682 FIGURE 1508

ACGAGGATCCGGGTTCCAACCCAGGGGGAAAAATCCGGCCTTTGACTGAAGAGAGACCCGTGTCATGTTTGAGA AGATAGCGAAATACATTGGGGAGAATCTTCAACTGCTGGTGGACCGGCCCGATGGCACCTACTGTTTCCGTCTGC ACAACGACCGGGTGTACTATGTGAGTGAGAAGATTATGAAGCTGGCCGCCAATATTTCCGGGGACAAGCTGGTGT CGCTGGGGACCTGCTTTGGAAAATTCACTAAAACCCACAGTTTCGGTTGCACGTCACAGCTCTGGATTACCTTG CACCTTATGCCAAGGGTTTTGGGGTGGCAGCCAAATCTACACAAGACTGCAGAAAAGTAGACCCCATGGCGATTG TGGTATTTCATCAAGCAGACATTGGGGAATATGTGCGGCATGAAGAGACGTTGACTTAAAACGAAGCCATTCCAA GGACAGACGCTGTATGGAAAGGCCGAGCTTTGTTTCCTGTGTTTGTGTGGACTCCACCATCATGTTGAATTTTG TCAACACTCTGGCCTCTTCAGGGACTTCTTATTTACTGTACTCTCTATCACTGACAAATGCAGGCTGGATTCTTA TTATATACAGAGATGGCTCAAAAATGGGGTTTCAGATCTTTGTGACGAAATAGAATACTGTTTCATATTTGAATC AGAGGGGCTTCTTGTTCTGAGAAATAGGTTCAAAATCATTGGAACCAGGAACAAGAATAGCTTATTGTTATCTGT GATAACACTGTTTTCTAAACACAAGGATTTTCTTTTTTATTAATATGCAACATAGACATTGCCATAACAGAATAA TAAACCACATGTGGGGTTTTAAAAATGAAATTTGGCTAATAGGAGCAATTCAGCTATTTTTCTATACAGTAATTG GTGTGTGTATAGAAGAAAAACGGGTTCAAACCCCACTTCTGCCACCTACCAGCTATATGGCCTTGAATGAGTCA TTCAGCTTTAATAAGGTTCATTTCTTCTGTTTAAAAAGACACAAAACTTGAAAATCAGCTTTGGCCATCTACCT GAGAATTAGAAAGTCTGATTTTTGGAATTAGAAATCATGATTGTAGGCTGGGCACAGTGGCTCGCGCCTGTAATC CCAGCACTTTGGGAGGCCAAGGCGGACGGATCACTTGAGGTTAGGAGTTTGAGACCAGCCTGGCCAACATGGTGA AACCCCATCTCTACTAAAAAAAAAAAAATTAGGTGTGGTGACACATGGCTGTGGTCCTAGTTACTTGGGAGGC TGAGGCAGGAGAATGGCTTGAACTGGGGAAGCAGAGCTTGCAGTGAGCCAAGATGGTGCCATTGCACTCCAGCCT GGGCGTGACAGAGTGAGACTCCATCTGATTGTAAAGCATCTAGTACAGTGTCCAGTGCCTTGGAAATGATAGGTA TGGAATAAATGGTAATTATTTTTATATTATATATATTATGTATTCCTGTTATTAAGTGTAGAGTTTTATGAGTAT AATTTGATTTATTACCTTCTTTTTTACAAGCTGTTTTCTCAGTATTTTTCTTGGATGGGATGACGCTAGGCTGG AAAGTTTTTTCATCACCACTATGATTTTATAAAACAATTTTTTCTATGAACCTTTACTTGACTGGATTGGACT AAAAGCACTGATCAGAGGCCACGACATAAAAATTCAGTCCCTTTGTCCTTCCCCGTGCCTCCCAAAGTTACTTTA AGATCCTTAGAATATTTCTTTAAATATTTTATAGACAAAAATTTAAAGACTATCTGTATTGCAAAATTAAACTA TTTCTTTAATGAATATTTCCTTATTTTAAGTTCCAAAGGTGAAGTCTTTAAGAATAAAACATTACCAACTCCTG 

## 1659/2682 FIGURE 1509

 ${\tt MRPLTEEETRVMFEKIAKYIGENLQLLVDRPDGTYCFRLHNDRVYYVSEKIMKLAANISGDKLVSLGTCFGKFTK} \\ {\tt THKFRLHVTALDYLAPYAKGFGVAAKSTQDCRKVDPMAIVVFHQADIGEYVRHEETLT}$ 

### 1660/2682 FIGURE 1510

CACACAGCCTGCTGAGTGTGATTGCCAACTTCATCCCTTTCTCTGATCTCAACCAGAGTCCACGGAACATGTACC AATGCCAGATGGGTAAGCAAACTATGGGCTTTCCACTTCTCACTTATCAAGACCGATCGGATAACAAACTGTATC GTCTTCAGACTCCTCAGAGTCCCTTGGTGAGACCCTCCATGTATGATTATTATGACATGGATAACTATCCAATTG GGACCAATGCCATCGTTGCTGTGATTTCTTACACTGGCTATGATATGGAAGATGCCATGATTGTGAATAAGGCCT CTTGGGAACGAGGCTTTGCCCATGGAAGTGTCTACAAGTCTGAGTTCATAGACCTCTCTGAAAAAATTAAACAAG GAGATAGTAGCCTGGTGTTTGGCATCAAACCTGGTGACCCACGCGTTCTGCAGAAGTTAGATGACGATGGATTGC CGTTTATAGGAGCAAAACTGCAGTACGGAGATCCGTATTACAGCTACCTCAACCTCAACACCGGGGAAAGTTTTG TGATGTACTATAAGAGTAAAGAAATTGTGTTGTGGATAACATCAAAGTGTGCAGTAATGACACTGGGAGTGGAA AATTCAAGTGTGTTTGCATCACTATGAGAGTGCCTCGGAACCCAACTATCGGAGATAAATTTGCCAGTCGCCATG GGCAGAAGGGCATTTTAAGCAGATTGTGGCCGGCTGAGGACATGCCTTTTACTGAGAGTGGGATGGTCCCAGACA TTCTGTTCAATCCCCATGGTTTTCCATCCCGCATGACCATTGGGATGTTAATTGAGAGTATGGCCGGGAAGTCTG CAGCTTTGCATGGTCTCTGCCATGATGCTACACCCTTCATCTTCTCAGAGGAGAACTCGGCCTTAGAATACTTTG GTGAGATGTTAAAGGCTGCTGGCTACAATTTCTATGGCACCGAGAGGTTATATAGTGGCATCAGTGGGCTAGAAC TGGAAGCAGACATCTTCATAGGAGTGGTTTATTATCAGCGCTTACGCCATATGGTCTCAGACAAATTTCAAGTAA GGACAACTGGAGCCCGAGACAGAGTCACCAACCAGCCTATTGGGGGAAGAAATGTCCAGGGTGGAATCCGTTTTG GGGAGATGGAACGGGATGCGCTTTTAGCTCATGGTACATCTTTTCTCCTTCATGACCGCCTCTTCAACTGCTCAG ATCGGTCGGTAGCCCATGTGTGTGAAGTGTGGCAGTTTACTCTCTCCACTGTTGGAGAAGCCACCCCCTTCTTGG TCTGCCATGCGCAACAGAAAATACAACTGTACTCTGTG<u>TAG</u>TCGCAGTGACACTATCGATACTGTTTCTGTGCCT TATGTTTTCGGTATTTTGTAGCTGAACTGGCAGCTATGAACATCAAAGTGAAACTGGATGTTTAACTTGAT GTTGACCTTTTGGATTAAGGGGACTATCAGATTAAAGCAAAATGTAATTTTAATTCAATGAAGATATCATTACCA GGTTACTCTTGAGATTTTTCAACGGTGTTAGAACTCTCAACCAAGACCTGAAAACCAAGTATGCAAGGTTTCTGA ATCTCTCTGGTAGATTAACTATTGACAATGATTTTCTGTTATCTTTGTTCAAAAAGTTCATGTCTTCTCAAAAATA TGAAATATTGATAAATGGAAGAGCATACGGTGACAAGTCTCCTTTCCAACCCCAGGTTCCCTACACCCTGCTCTC AGCAGGCAGTGAGTGTCACACACCTGTTAATCCATCTTGAGCAGGACAGTACTATACAAATAGAATGCAAGCTGT GAAGTACAGTTGTTACATATTTAATGAATACAATTTGATGGGTCTGACTATATGCACACCCTTTGATACCATCA CCACAATCAGGGTAATAAACATACCTGTCATCTCCACAAGTTTCCTCCTGCCCCTTTGTTTTTTTGCTTTTTGGTT GCTGTTGAGTTTTTGTTTTGTCTTCTGTGGTAAGAACACTTAACTCAAGACCTACCCTCTTAACAAATCTTTAAG TGCACGATATAGTATTGTTAATTCCAGGCACCATGTTGTACAACAGATCTTTAGACCTTACTTGTCTTGCATAAC TGAAGCTTTATACCTGTTGAACAACTCTCCATTTCCCTGGCCCCTAGCAACCACCCTTCTACCCTGTTTCTATGA GTTTGACTATTACAGATATCTCATATAGTGGGATCATGCAATATTTGTCCTGTGACTGGCTTATTTCACTTAGCA TAGTGAAATAAGATTCATCCATTTTGGAAGCCAGGCATGGTGCTGTGCATCTATAGTCCCTGCTATTTGAGAGGC TGAGGTGGGAGGATCATTTGAGTGCAGGAGTTCAAGGACAGCCTGGGTAATATAGGAAGACCCTGTCTTGAAGAC CCTGACCTCAAGTGATCCACCCCACCTCGGCCTCCGAAAGTGCTAGGATTACAGGTGTGAGCCACTGTGCCTGGCC TCCGGTGAGTATTTTATATTTAGTCTACACTTCCATACTTGGCTTTTTTCTGCTTTTATGTTGATCTGCTTTCAT AGCAGTGTGTAGAGTGCCACTTATGTTTTCTTTCTTGTGTACAGTATTTTATTGTATGGATTTACCATCCCCTGT GTATTTAAGTTGTTCCATTCTTTGGCCATTATAACTTTTTTCTGCAAATATTCTGGTGACTTATCTTTGGCCATT ATAAACTGTTGATAATAAAAAAAAAAAAAAAAAAA

# FIGURE 1511

MNVAIFEDEVFAGVTTHQELFPHSLLSVIANFIPFSDLNQSPRNMYQCQMGKQTMGFPLLTYQDRSDNKLYRLQT PQSPLVRPSMYDYYDMDNYPIGTNAIVAVISYTGYDMEDAMIVNKASWERGFAHGSVYKSEFIDLSEKIKQGDSS LVFGIKPGDPRVLQKLDDDGLPFIGAKLQYGDPYYSYLNLNTGESFVMYYKSKENCVVDNIKVCSNDTGSGKFKC VCITMRVPRNPTIGDKFASRHGQKGILSRLWPAEDMPFTESGMVPDILFNPHGFPSRMTIGMLIESMAGKSAALH GLCHDATPFIFSEENSALEYFGEMLKAAGYNFYGTERLYSGISGLELEADIFIGVVYYQRLRHMVSDKFQVRTTG ARDRVTNQPIGGRNVQGGIRFGEMERDALLAHGTSFLLHDRLFNCSDRSVAHVCEVWQFTLSTVGEATPFLVCHA QQKIQLYSV

### 1662/2682 FIGURE 1512

TGAGAGGCAATGTTTGCTGTCTTCCATTGGAGTGACTGAATTTCTACATGACGGCTTTTTGACAAGACTTAAAAC CTGTCTTGGATAGAGAATATTTAGCCATTTACCTAAAAAATCGTATTTTTTACATGCAATGCATGTGGTGAATCAG TGAAGAAAATACAAGTGGAAAAGCATGTGTCTGTTTGCAGAAACTGTGAATGCCTTTCTTGCATTGACTGCGGTA AAGATTTCTGGGGCGATGACTATAAAAACCACGTGAAATGCATAAGTGAAGATCAGAAGTATGGTGGCAAAGGCT ATGAAGGTAAAACCCACAAAGGCGACATCAAACAGCAGGCGTGGATTCAGAAAATTAGTGAATTAATAAAGAGAC CCAATGTCAGCCCCAAAGTGAGAGAACTTTTAGAGCAAATTAGTGCTTTTGACAACGTTCCCAGGAAAAAGGCAA AATTTCAGAATTGGATGAAGAACAGTTTAAAAGTTCATAATGAATCCATTCTGGACCAGGTGTGGAATATCTTTT CTGAAGCTTCCAACAGCGAACCAGTCAATAAGGAACAGGATCAACGGCCACTCCACCCAGTGGCAAATCCACATG CAGAAATCTCCACCAAGGTTCCAGCCTCCAAAGTGAAAGACGCCGTGGAACAGCAAGGGGGAGGTGAAGAAGAATA AAAGAGAAAGAAAGGAAGAACGGCAGAAGAAAAGGAAAAGAGAAAAGAAAGAAACTAAAGTTAGAAAACCACCAGG AAAACTCAAGGAATCAGAAGCCTAAGAAGCGCAAAAAGGGACAGGAGGCTGACCTTGAGGCTGGTGGGGAGGAAG TCCCTGAGGCCAATGGCTCTGCAGGGAAGAGGAGCAAGAAGAAGAAGCAGCGCCAAGGACAGCGCCAGTGAGGAAG AGGCACGCGTGGGCGCAGGGAAGAGGAAGCGGAGGCACTCGGAAGTTGAAACAGATTCTAAGAAGAAAAAAGATGA AGCTCCCAGAGCATCCTGAGGGCGGAGAACCAGAAGACGATGAGGCTCCTGCAAAAGGTAAATTCAACTGGAAGG GAACTATTAAAGCAATTCTGAAACAGGCCCCAGACAATGAAATAACCATCAAAAAGCTAAGGAAAAAGGTTTTAG CTCAGTACTACACAGTGACAGATGAGCATCACAGATCCGAAGAGAACTCCTGGTCATCTTTAACAAGAAAATCA GCAAGAACCCTACCTTTAAGTTATTAAAGGACAAAGTCAAGCTTGTGAAA**TGA**ACATTTGTGTATTTAAAAATTG AATCCATTCTGCTGACTTCTTCCTTTCACTGCTGTTTATAAAATGTGTAATGAATTCTAACAACTCAAATTTTGC TTTTTGAAGCTGTATTTTTAAGTTAAGAAAATATATTTTTGGTATAACTTTTATGAGAAAAATAAAATATATTCT AAAAAAAAAAAAAAAAAAAAAA

## 1663/2682 FIGURE 1513

MVFFTCNACGESVKKIQVEKHVSVCRNCECLSCIDCGKDFWGDDYKNHVKCISEDQKYGGKGYEGKTHKGDIKQQ AWIQKISELIKRPNVSPKVRELLEQISAFDNVPRKKAKFQNWMKNSLKVHNESILDQVWNIFSEASNSEPVNKEQ DQRPLHPVANPHAEISTKVPASKVKDAVEQQGEVKKNKRERKEERQKKRKREKKELKLENHQENSRNQKPKKRKK GQEADLEAGGEEVPEANGSAGKRSKKKKQRKDSASEEEARVGAGKRKRRHSEVETDSKKKKMKLPEHPEGGEPED DEAPAKGKFNWKGTIKAILKQAPDNEITIKKLRKKVLAQYYTVTDEHHRSEEELLVIFNKKISKNPTFKLLKDKV KLVK

## 1664/2682 FIGURE 1514

# 1665/2682 FIGURE 1515

 ${\tt MAMQAAKRANIRLPPEVNRILYIRNLPYKITAEEMYDIFGKYGPIRQIRVGNTPETRGTAYVVYEDIFDAKNACD}\\ {\tt HLSGFNVCNRYLVVLYYNANRAFQKMDTKKKEEQLKLLKEKYGINTDPPK}$ 

# FIGURE 1516A

TCCAAGCCGGAGGGGTCCTGAGGTGACAGCGCCTGCAACTGAAATTTCAGCAGCGGGAGAAG<u>ATG</u>GACAAGAGAA AGCTCGGGCGACGGCCATCTTCATCCGAAATCATCACAGAAGGAAAAAGGAAAAAGTCATCTTCTGATTTATCGG AGATAAGAAGATGTTAAATGCAAAACCAGAGGATGTCCATGTTCAATCACCACTGTCCAAATTCAGAAGCTCAG AACGCTGGACTCTCCCTTTGCAGTGGGAAAGAAGCCTAAGGAATAAAGTCATCTCTCTAGACCATAAAAATAAAA AACATATCCGAGGGTGTCCTGTTACTTCCAGGTCATCACCAGAAAGGATACCCAGAGTTATATTGACGAATGTCC TGGGAACGGAGTTAGGAAGAAAATACATAAGGACCCCACCTGTAACTGAGGGAAGTTTGAGTGATACAGACAACT TGCAATCAGAGCAACTTTCTTCATCATCTGATGGCAGCCTAGAATCTTATCAAAATCTAAACCCTCACAAGAGCT GTTATTTATCTGAAAGGGGCTCACAACGAAGTAAGACAGTAGATGACAATTCTGCAAAGCAGACTGCGCACAATA AAGAAAAACGAAGAAAGGATGATGGCATTTCTCTTTTAATATCTGATACTCAGCCTGAAGACCTTAACAGTGGAA GTAGAGGTTGTGATCATCTCGAACAGGAAAGCAGAAACAAGGATGTTAAATATTCTGATTCAAAAGTGGAACTCA CTCTGATTTCCAGGAAGACAAAGAGAAGGCTTAGAAATAATTTACCTGATTCTCAATATTGTACTTCTTTGGATA AGTCAACAGAACAGACAAAAAAAACAAGAAGATGACTCAACAATATCCACTGAGTTTGAAAGGCCAAGTGAAAACT ATCATCAGGATCCAAAACTGCCTGAAGAAATTACAACTAAACCTACAAAAAGTGATTTTACTAAGCTATCCTCAC TTAACAGTCAGGAGTTGACTTTGAGTAATGCCACCAAAAGTGCCTCTGCCGGTTCAACCACTGAAACCGTTGAGT ACTCTAATTCCATTGATATTGTGGGGATTTCTTCCCTGGTTGAGAAGGATGAGAATGAGTTGAATACCATAGAAA AGCCTATTCTAAGAGGACATAATGAAGGGAACCAATCACTGATCTCAGCTGAACCAATTGTTGTTTCCAGTGATG AAGAAGGACCTGTTGAACATAAAAGTTCAGAAATTCTTAAGTTACAATCTAAGCAAGACCGTGAGACAACTAATG AAAATGAGAGTACTTCTGAATCAGCATTGTTAGAACTACCATTGATTACATGTGAATCTGTACAGATGTCATCTG AATTATGCCCATATAATCCTGTCATGGAGAACATTTCCAGTATTATGCCTAGTAATGAGATGGATCTACAACTGG ATTTTATATTTACTTCTGTTTATATTGGTAAAATAAAAGGAGCTTCTAAAGGTTGTGTTACAATCACAAAAAAAT ATATTAAGATCCCATTTCAAGTGTCCCTGAATGAGATTTCATTGCTAGTGGATACCACACATTTAAAGCGGTTTG ATCTTCAAGAGATTCAGACCCAATTAGAACACTCTGTATTAAGCCAGCAATCAAAATCTAGTGAATTCATTTTCC TTGAACTACACAATCCTGTTTCACAGAGAGAAGAATTGAAGCTGAAAGATATTATGACGGAAATAAGTATAATCA GTGGAGAATTAGAGCTTTCTTACCCGTTGTCTTGGGTTCAGGCATTTCCTTTGTTTCAGAACCTCTCTTCAAAAG AAAGTTCTTTTATTCATTATTACTGTGTTTCAACTTGTTCTTTCCCTGCTGGTGTTGCTGTTGCTGAAGAAATGA AGCTGAAATCAGTATCTCAGCCCTCAAACACAGATGCGGCCAAGCCTACTTACACCTTCCTGCAGAAGCAAAGTA GCGGTTGCTACTCCCTTTCTATTACATCTAATCCAGATGAAGAATGGCGGGAAGTCAGGCACACTGGACTTGTTC AGAAGTTGATTGTATATCCTCCACCACCTACTAAGGGGGGGATTGGGAGTAACTAATGAAGATCTGGAGTGTTTAG AAGAAGGAGATTTCTTAATGATGTAATCATTGATTTTTACCTTAAGTATCTTATATTGGAGAAGGCATCAGATG AACTTGITGAACGAAGTCACATTTTTAGTAGCTTTTTCTATAAATGCTTGACAAGAAAGGAAAATAATTTAACAG AAGATAATCCAAATCTTTCAATGGCACAGAGAAGACATAAAAGAGTAAGAACATGGACTCGTCACATAAACATTT TTAATAAAGATTACATCTTTGTACCTGTAAATGAGTCGTCTCACTGGTATCTCGCAGTCATTTGTTTTCCATGGT TAGAAGAAGCTGTGTATGAAGATTTTCCACAAACTGTATCCCAGCAGTCCCAGGCTCAGCAGTCCCAAAGTGACA ACAAAACAATAGATAATGATCTACGTACTACTTCGACACTGTCTTTGAGTGCAGAGGATTCCCAAAGTACCGAGT CGAATATGTCAGTACCAAAGAAAATGTGTAAAAAGGCCATGTATTCTTATACTAGACTCCTTGAAAGCTGCTTCTG TACGAAACACTCAGAATTTACGAGAGTATTTAGAGGTAGAGTGGGAAGTTAAACTAAAAACTCATCGTCAAT TCAGCAAAACAAACATGGTGGATCTATGCCCTAAAGTTCCTAAACAGGACAATAGCAGTGATTGTGGAGTATATT TATTGCAGTATGTGGAAAGCTTCTTCAAGGATCCTATTGTTAACTTTGAACTTCCAATTCATTTGGAGAAGTGGT TTCCTCGTCATGTAATAAAGACCAAACGGGAAGATATTCGAGAGCTCATCTTGAAACTTCATTTACAGCAACAGA AGGGCAGCAGTAGC<u>TAG</u>TTAATCTGTACAAACATGACACAGATGTTCTCTAAGATTACTGGAAAGCCCCTTACCA GCATTTGTGTTAGCCAGCTCACAGAGAAGAAAATAACTTGCAGTAGTTTTATAATAAGTCATTGGAACATTATTT AAAATATGTAGGACACATTATTAGAATTGTTGGGATCTCATAGATGGAATGGGAATGGGGGTGATATAGATAAAC TTACTAGATATAAATTTATAAATATTTCATATTTTCTGAGTAAATATGATTGGATTATGCAACAGCA TATGTAATATGGGAATGTTTTGTAGATAATAAAACTTACATGATCTGTACTTCCACGTGACTGGGTGCTGAGGGG AGTTAAAGCCTCCCTGGTGCCAGCCCCAGTGCTTGTCAAATTTGCTGACAGGTCACATCATATTGTAATTCTATT CTTTGCAGCTCAAGCATGCAGTATGAATACTGTGTATTTTTTAAAAAAATAATTTTGGTATCAAGGCTTCAGAAAA

# FIGURE 1516B

TGCCATTTACGGCATCCCTTCTGTATGTAACAAAAAGACATTCATAATGTTAGGAAGATGATAAAAATTCGCTCT ATATGTGAGTATCTTATAATTTAGTTCATTTGTTCAGGGTAAAATTTGAAACAAAAATTTTACCTGTGCAAAAT TTATGTATAGTTTCTCTAATATAGAAGATAAAATTGGTGTCCTCATAACTTTAACAAAGAAAACCCTCAGTCCTA TTTATTAATGGGTAGAATTAAATATATATATTTTATAGCTCAGTTTACCCAGTATTCATCTGCAAAGCCAGATTGC TCTCATTGCTTTTATATTTTTAAATTGTAGCTTTTAGAGACCTATGATCCTCATGGAACTTAATTTTTTATTAAA TATTCAGGTAACAGTTCTGAATTCATGTGATAATGGTGGCATTATATATGATTAAACACTTCAGAACTTTCTAAT GTTATCAGGAGTATTTTGAGGGAGATATGATTATATTGTATTTTCTCAGATAAGAAAAATGTTTTTTAACAATAT TATTTTAATCTGTTTTAAGCATCTCTTAGATTTACATTATAACTACATAAAGCAGTGAAGCAAAGGCAAATTAAG ATAAAGCTAGAAAGTCTGAACATTTTATTTCAAAATCATACGAATCGGGGTCAGTTAAGCCTCAGTATTCTTAGC AATTACATATTCATTCCCAATTTGTGTGTGTGTGGGGGGTACTTTTAAAGGTGACTATTGTTTTGTACATCTAAT GTCCTTTATCATGTTTTGAAGATTGTTTAAAATTCATTTTCCTAAATTAATGTGCAAGTAATGTTTTGAGGATAT ATGATGATGATGATGTCGAC

### 1668/2682 FIGURE 1517

MDKRKLGRRPSSSEIITEGKRKKSSSDLSEIRKMLNAKPEDVHVQSPLSKFRSSERWTLPLQWERSLRNKVISLD
HKNKKHIRGCPVTSRSSPERIPRVILTNVLGTELGRKYIRTPPVTEGSLSDTDNLQSEQLSSSSDGSLESYQNLN
PHKSCYLSERGSQRSKTVDDNSAKQTAHNKEKRRKDDGISLLISDTQPEDLNSGSRGCDHLEQESRNKDVKYSDS
KVELTLISRKTKRRLRNNLPDSQYCTSLDKSTEQTKKQEDDSTISTEFERPSENYHQDPKLPEEITTKPTKSDFT
KLSSLNSQELTLSNATKSASAGSTTETVEYSNSIDIVGISSLVEKDENELNTIEKPILRGHNEGNQSLISAEPIV
VSSDEEGPVEHKSSEILKLQSKQDRETTNENESTSESALLELPLITCESVQMSSELCPYNPVMENISSIMPSNEM
DLQLDFIFTSVYIGKIKGASKGCVTITKKYIKIPFQVSLNEISLLVDTTHLKRFGLWKSKDDNHSKRSHAILFFW
VSSDYLQEIQTQLEHSVLSQQSKSSEFIFLELHNPVSQREELKLKDIMTEISIISGELELSYPLSWVQAFPLFQN
LSSKESSFIHYYCVSTCSFPAGVAVAEEMKLKSVSQPSNTDAAKPTYTFLQKQSSGCYSLSITSNPDEEWREVRH
TGLVQKLIVYPPPPTKGGLGVTNEDLECLEEGEFLNDVIIDFYLKYLILEKASDELVERSHIFSSFFYKCLTRKE
NNLTEDNPNLSMAQRRHKRVRTWTRHINIFNKDYIFVPVNESSHWYLAVICFPWLEEAVYEDFPQTVSQQSQAQQ
SQSDNKTIDNDLRTTSTLSLSAEDSQSTESNMSVPKKMCKRPCILILDSLKAASVRNTVQNLREYLEVEWEVKLK
THRQFSKTNMVDLCPKVPKQDNSSDCGVYLLQYVESFFKDPIVNFELPIHLEKWFPRHVIKTKREDIRELILKLH
LQQQKGSSS

### 1669/2682 FIGURE 1518

GCTCTGCACCCCTGCTTCTGCTTTGAAGGCGGAGGCTCCATGTTGTCCCCTCAGCGAGTGGCAGCAGCTGCC TCAAGAGGAGCAGATGATGCCATGGAGAGCCAGCCAGGTCCAGTGCAGGTTGTTTTGGTTCAGAAAGATCAA  ${\tt CATTCCTTTGAGCTAGATGAGAAAGCCTTGGCCAGCATCCTCTTGCAGGACCACATCCGAGATCTTGATGTGGTG}$ GTGGTTTCAGTGGCTGCCTTCCGAAAGGGCAAGTCCTTCATTCTGGATTTTATGCTACGATACTTATATTCT  $\tt CAGAAGGAAAGTGGCCATTCAAATTGGTTGGGTGACCCAGAAGAACCGTTAACAGGATTTTCCTGGAGAGGGGGGA$ TCTGATCCAGAAACCACTGGGATTCAAATCTGGAGTGAAGTTTTCACTGTGGAGAAGCCAGGTGGGAAGAAGGTT  ${\tt GCAGTTGTTCTGATGGATACCCAGGGGGGCATTTGACAGCCAGTCAACTGTGAAAGACTGTGCCATCTTTGCT}$ CTAAGCACTATGACTAGTTCTGTTCAGATTTATAATTTATCTCAGAACATTCAAGAAGATGATCTTCAACAGCTG CAGCTCTTCACAGAATACGGTCGTCTGGCAATGGATGAAATTTTCCGAAAGCCTTTCCAGACACTGATGTTTTTG GTTAGAGATAGGAGTTTCCCTTATGAATATAGCTATGGACTCCAAGGAGGAATGGCATTTTTGGATAAGCGTTTA CAGGTGAAGGAACATCAACATGAAGAAATTCAGAATGTTCGAAATCACATTCACTCATGTTTCTCCGATGTCACC TGCTTTCTCTTACCACATCCAGGACTCCAGGTGGCCACAAGCCCTGACTTTGATGGGAAATTAAAAGATATTGCT AATGGCTCAAAGGTCACCTGTCGGGGACTACTGGAGTATTTTAAGGCATATATAAAATTTATCAAGGAGAAGAT CTGCCTCACCCCAAGTCCATGCTTCAGGCCACTGCTGAAGCCTACAACTTAGCAGCTGCAGCCTCTGCCAAGGAC ATTTATTATAACAACATGGAAGAGGTTTGTGGGGGGAGAAACCTTATTTGTCTCCAGACATTCTAGAGGAGAAG CGTTACCAGCAGGAGCTGGAGGAGGAAATCAAGGAATTATATGAGAACTTCTGCAAGCACAATGGTAGCAAGAAC GTCTTCAGCACCTTCCGAACCCCTGCAGTGCTGTTCACGGGCATTGTAGCTTTGTACATAGCCTCAGGCCTCACT GGCTTCATAGGTCTTGAGGTTGTAGCCCAGTTGTTCAACTGTATGGTTGGACTACTGTTAATAGCACTCCTCACC TGGGGCTACATCAGGTATTCTGGTCAATATCGTGAGCTGGGCGGAGCTATTGATTTTGGTGCCGCATATGTGTTG  ${\tt GATAAAAAAGCTCAA} {\color{red}{\textbf{TAG}}} {\tt CATCTTAACGTGAAGATCAAACAAGAACAACAAGCCCCTACTGATTTCTGGGTTT}$  $\verb|CTGCCACGGCCACAGGTTCATATCCAGAGGAATGGCAGATCTGAGACGATCCAGGAAGAGCTAAAACATGGCCCT|\\$ 

### 1670/2682 FIGURE 1519

ALHPCCFCFEGGGSMLSPQRVAAAASRGADDAMESSKPGPVQVVLVQKDQHSFELDEKALASILLQDHIRDLDVV VVSVAGAFRKGKSFILDFMLRYLYSQKESGHSNWLGDPEEPLTGFSWRGGSDPETTGIQIWSEVFTVEKPGGKKV AVVLMDTQGAFDSQSTVKDCAAIFALSTMTSSVQIYNLSQNIQEDDLQQLQLFTEYGRLAMDEIFRKPFQTLMFL VRDRSFPYEYSYGLQGGMAFLDKRLQVKEHQHEEIQNVRNHIHSCFSDVTCFLLPHPGLQVATSPDFDGKLKDIA GEFKEQLQALIPYVLNPSKLMEKEINGSKVTCRGLLEYFKAYIKIYQGEDLPHPKSMLQATAEAYNLAAAASAKD IYYNNMEEVCGGEKPYLSPDILEEKHCEFKQLALDHFKKTKKMGGKDFSFRYQQELEEEIKELYENFCKHNGSKN VFSTFRTPAVLFTGIVALYIASGLTGFIGLEVVAQLFNCMVGLLLIALLTWGYIRYSGQYRELGGAIDFGAAYVL EQASSHIGNSTQATVRDAVVGRPSMDKKAQ

# FIGURE 1520

# 1672/2682 FIGURE 1521

 ${\tt MQAALEVTARYCGRELEQYGQCVAAKPESWQRDCHYLKMSIAQCTSSHPIIRQIRQACAQPFEAFEECLRQNEAA} \\ {\tt VGNCAEHMRRFLQCAEQVQPPRSPATVEAQPLPAS}$ 

## 1673/2682 FIGURE 1522

 ${\tt ATTGCTGGCCTAGGTGAAACTGACGGTCTCCATTAGAAAC} \underline{{\tt ATG}} {\tt GCTGCGACCAGTCTAGTGGGTATTTGTAGAAG}$ AGCCTCAGCGTTCCTGAAGGCAGCTTGTTCCCTAGTAAATCCCAAGGACGCTGCTCACTCGGGTTGCAGGTCTTC TCTTAGTTTGTTGCCTAAGAGTACACCAAATGTGACATCCTTTCACCAATATAGATTACTTCATACCACATTGTC AAGGAAAGGACTAGAAGAATTTTTTGATGACCCAAAAAACTGGGGGGCAAGAAAAAGTAAAATCTGGAGCAGCATG CATGCTTCTAACCCTAGAGCAGGAGGCCAAGCGGCAGAGATTGCCAATGCCAAGTCCAGAGCGGTTAGATAAGGT AGTAGATTCCATGGATGCATTAGATAAAGTTGTCCAGGAAAGAGAAGATGCCCTAAGGCTTCTTCAGACTGGTCA AGAAAGAGCTAGACCTGGTGCTTGGAGAAGAGACATCTTTGGAAGAATCATCTGGCACAAGTTCAAGCAGTGGGT TATACCTTGGCACCTAAATAAAAGATACAATAGGAAACGATTCTTTGCCTTGCCTTATGTGGACCATTTTCTCAG AAAAAAGTTTCCACATCTTGCTGAAGCCCAAAAGTCAAGTCTTGTCTTTGTTTTTCTTGAATAGTCTGTGTACAGGAGTAAATATGTTAAGTGGTTTATAAAGAAATTCTGTTTTTAGTCA AGTGACTTTACTAATCAGTTGTTCTAAGTGTGAATATGGCATGCTAATTAGCTAATTTGGTAGAAGCTAATTTGC TTCTAAAAATCAGGTATAAAGTTCAGATGAGATTCCCACTTTATAAATTCTGACATTTAAGCAGGCTTTAAATGT CACCTGCTACCTTAGAGTGTGAAGGTGATGGTAACTGCCACAGCAAAGGCAATACCGTAGTTTTTGAATTTGAAT AATAGTTTTACCTCTGTTGTTAATAGGCTATGAAGAGGATGTGGGTATTGCTGTTAATAAACGGAGGACTTTGAT TCAAAATAATGAGAAATACATTTAGTCCTTAAAGTAGTAATCACAGTGCACAACAGTCCAAAATATATTTCTGGA ATGGCTAATTTTTATTTAATTCTGTAAGCCTAAGGTAAAAAGCATAGGCAGTAACTTTTACTAGTCAATAAAAAG CAGTTCTACCAATCCACTGGTAATTAATACACTAAACAGAGTTGGAAAGCATTTTACTGAAAGCAAAATATTTAG AGAAAATAGACATTTATACAAAATTATAAAATGCTTGTAATAAGAATAAGTGCATTTCAAGGAAAGCACAAACTT AATTTATAGAGCCAGTTAAAGCTTTAAAAAATTTAAGTGGAAATTGAAATATGCAAAAATGTATAAACATTCTAC TCCCAACACTTGTGGTGACAACATGACTGACTCCTAACATTGTGTTTCCTGATAACCCCTTCACATTGGAAGGGT CAAATAATCCTTCTGGAATCTTTAGCCGCTCTGCACCAAAATCACAATTGTAGCCATTGGGGAATTCATAATGAA CAGTTGGCATCTGTGCAGCCACTTGTTCATCATAAGTTGAATCTGACACTTGAAGTACCGAAGCTTGAAAATCCT GGATAACACAATTACACATATAATTGTGCCAAGACCTCGTAACCTGAGGCAACTTCTCTTTTCTTTTCCAGTTTG CTGGAGATCCTTCACGAACAGCTTCTTTTGATGCAATCATATATGGAGGAACCAATTCAATATTCATTTCTTGGA AGAGTTCTCTGCACTGCATAGTAATAAAGTCTCCAGCAAGAGGGGATTTCACAATGCCTTGTTGAAGGACATAGC CATCGTGGACTGGAATTGCAGTGGTATGAGTGGCTCCACTGTCCAAAATCAGCCCAGTAGAACGACCATTAGCAA ATGCTGTCAAAACTGCAGTTTTGCAAAGGAAGAAGGCAGGGATGTTGTAGTGTTCAAACATTAACTCTGTCAGTT TCTCTCTCTTTGCTCTAGTATTCCACGGTGCCTCTGACATGAGAACAGGATGGAGACTGGCTTCTGATTTGACAT GCATTTTGTAGGTATGATCCAAAATAGCTTGGAAACTATCCCAGTCTTCAACCATCCCATTTTTTAGAGGTGAAA TGGCCTCCATATTCTCCCTCGGAACACGCAGAGCATTAGTATCTATGTAGTAGGTGGGACCGCCTTGTTTGCCTT TATCGCCATCTATTTCCATTAATGTGCTTCCGTCATCTCTTTCTACCACCATACCAATAGCTGTAGGAAAATCCA CCTTGGGGCAGTCCTCACCAGCATAACCAGCTCTCACAGTATAGGATCCAAATGTCAAAAACAAGGGCTCCAACTT CATCTCCCCCGTACCACGCCGCCGCTCATGGCTGCCGGCGGCGACTCCTACCCTAAGGGCTAACTGGCGAAGT CAGGCAACAAAGCGG

# 1674/2682 FIGURE 1523

 $\label{thm:construction} {\tt MAATSLVGICRRASAFLKAACSLVNPKDAAHSGCRSSLSLLPKSTPNVTSFHQYRLLHTTLSRKGLEEFFDDPKN$$ WGQEKVKSGAAWTCQQLRNKSNEDLHKLWYVLLKERNMLLTLEQEAKRQRLPMPSPERLDKVVDSMDALDKVVQE$$ REDALRLLQTGQERARPGAWRRDIFGRIIWHKFKQWVIPWHLNKRYNRKRFFALPYVDHFLRLEREKRARIKARK$$ ENLERKKAKILLKKFPHLAEAQKSSLV$$$ 

#### 1675/2682 FIGURE 1**524**

CTTGGGGTGGGGACCGGGTGAGGGGCCTGACGGCAGAGTCGGTCCAGAACTGCCCGGACAGCGACGCGACGCGAG GAGCCAAAATGGAAGAGGGTGCAAGTCCCCTCCTGGGGCCCCAGACGCCCCCTCCTTTCTTGCTGCCTGGAGCAG GGGCAGTGCTGTTAGTGGCTACTCCTGGTGTGAACAGCCCATCCTGGCCACCTTCCACAGGAAACCTGACCTGAA CCCCAAGCCCCAGGATCCAGGTCCACCAGCCAACTCAGACAGTGACTCAGGCCACCTGCCGGGGGAGGACCCTGA GGATACCCATGCTCAGGAATTCCTGTCTCTGCACCTGCTTAGAACATGGGGTTTTGACTTTAAACTCATTCACAT GAGTATTCATTATCTCCTAGGGGGTCTGTATTGTCAAACCAGACTCTAGGGGGCTTTGGCCCCAAGGCGTGAAG CCACACATGCAGGCATCAGTCAGCTATCCTTGCACTCAGTGAGGATCTGCAAGGAGGACCCTCCCAAATGGAGGG  $\tt CCTAGTTTCACTCCTCCCTTCTTCC\textbf{ATG} CCTCAGGGTTCTGCAGTTCTGAGCTTGGGTTCCCTTTGCCTGG$ GCTACTGCCTGGCCCTTGGGGAGGAGGAGCGGCCCGAGCTGCAGCTCTTCTGTGCCAGGCGGAAGCAGGAAGCCC TGGGACAGGGGGTAGCCCGCCTGGTACTTCCCAAGCTTGAAGGACACACCTGTGAGAAGTGTAGGGAGTTGCTGA AGGCCTGTGGCCAGGCCCTGATAAACCTCATCTACTTCTACCATGATGGACAACTCTACTGCGGCCGTCATCATG CAGAGTTGCTGCGCCCGCGCTGCTGTGACCAGCTGATCTTCTCCTGGCGCTGCACCGAGGCGGAGGGAC GGGGAAGCCCCTGCTGCCCCAGCTGCTTCGAGAACCGCTACTCGGATGCAGGCTCGAGCTGGGCCGGGGCACTGG AAGGGCAGGCATTCCTTGGAGCGCCCCCACCGCACCCCCAGACCCAAGCCTCGGGGCCCGCAGCTCTCACCGCG  $\tt CGCGCACGGCCCAGGGGCTGGGCGGGGGGGGGGCTGGGCCTCACCCCACTAGCTGCGGTG\underline{TAG}{G}{TCCAGCTCC}$ CAAACCTCGGTGAACTCTGCAACCCTCTCCCGAACACTCCTTGCTGCTGCCGGCGGTTCCAGCCTGCAAACTCAG AGGGGGCTGCCTGGATCCAGTCCCAGCAGGAGAACCGACCTGGGGACAAAGCGGAGGCACCCAAAGGGCAGGAG CAATGCCGCCTGGAGACTATTCGTGATCCCAAGGACACCCCTTTCTCCACCTGCTCCTCCTCCTCTGACTCGGAA CCTGAAGGATTTTTCTTAGGCGAGCGCCTTCCCCAGTCCTGGAAGACCCCCGGAAGCCTCCAAGCAGAGGACAGC AACGCCTCTAAGACGCACTGCACCATGTGCTAGTGGCGCAGCTCAGAGAGGGGATGTGAGTGGGAGAAAGGGGT CTGTAAAGCGGGAGAACAAGGCTAGCCTCCCCTAACAATCCTAGACTGAGACGCAGTCAGGCGCACGCCCGCAA GAGGCGGCGAGGTGACAAGTTTGGAGTGCGCCCCCTTCAGTACTGCGCGTTCTAAGACTTTTGGCGGAGACTTTC TTGGCAAAACCCATTCCCCAAAGCTACGCTTCCCCTGCTGAGATAGCCCCTACCCCCACCTCCACAGGCTGGGAC AGCCCCGTCCCCACCATCCTCCCCAAGCCAATTAAATGATCACAGCACGCGTGACAGTTACCGGCTGGAGAGC GCCAGACCGGAGGTGCGTCATTCACCGGCGACGCCGATACGGTTCCTCCAGCGAGGCCCATGCGAAGCTTTCCAC TATGGCTTCCAGCACTGTCCCGGTGAGCGCTGCTGGCTCGGCTAATGAAACTCCCGAAATACCGGACAACGTGGG AGATTGGCTTCGGGGCGTCTACCGCTTTGCCACTGATAGGAATGACTTCCGGAGGAACTTGATACTAAATTTGGG ACTCTTTGCTGCGGGAGTTTGGCTGGCCAGGAACTTGAGTGACATTGACCTCATGGCACCTCAGCCAGGGGTGTA GCCAAGTAGTTCTAATGCCACCTGTCGTCTTATCATCTGATTGCAGACAAATGGAATCCTGTGCTGAACCCGAAT CTTCCAAAAAACAGCCTACAATCTGTGACCACCACAAGATGTGCCCTGATGGCAGCTGAAGTTTGATTCAGATGG GCACTTTTCTTCCCCTTCCCTAGTTTCCTTTTGTTCCTTGAGTCCACGCAGAATTCCATTCTCTGGTCAGC AGACAGGCTTAAGCTAAAGTATTGCCTCTATTCTGTAAAGTTCTGTACATAGTTCCCAAGCTTCTGCAGGGGGTG ΑΑΑΑΑΑΑΑΑΑΑΑΑΑ

## 1676/2682 FIGURE 1525

MSPQGPAVLSLGSLCLDTNQAPNWTGLQTLLQQLPPQDIDERYCLALGEEERAELQLFCARRKQEALGQGVARLV LPKLEGHTCEKCRELLKPGEYGVFAARAGEQRCWHQPCFACQACGQALINLIYFYHDGQLYCGRHHAELLRPRCP ACDQLIFSWRCTEAEGQRWHENHFCCQDCAGPLGGGRYALPGGSPCCPSCFENRYSDAGSSWAGALEGQAFLGAP PPHPPDPSLGARSSHRASLAGAFQGPPEPTPRRGRGCGARLPPRRGRRTPSGGGGGPWRGLSAAAAARTAQGLGG AGGWASPPLAAV

# FIGURE 1526

GGGCCGAGCCATGCAGGCGTCGCGCGTGGACTACATCGCTCCCTGGTGGGTCGTGTGGCTGCACAGCGTCCCGCA CGTCGGCCTGCGCCCGTGAACAGCACCTTCAGCCCCGGCGACGAGAGTTACCAGGAGTCGCTGCTGTT CTGCCGGCGGGACGATGCGGTGCAGACCAAGCACCACTCCTGCTGCATCACCTGGACGGCCGTGGTGGCCGG GCTCATCTGCTGCTGCGGTGGGCGTTGGTTTCTATGGAAACAGCGAGACCAACGATGGGGCGTACCAGCTGAT GTACTCCTTGGACGATGCCAACCACCTTCTCTGGGATCGATGCTCTGGTTTCCGGAACTACCCAGAAGATGAA GGTGGACCTAGAGCACCTGGCCCGGCTCAGTGAGATCTTTGCTGCCCGGGGCGATTACCTGCAGACCCTGAA GCTGACCAAGCTATCCGACCAGACTGGCTACGTGGAGTACTACAGGTGGCTCTCCTACCTCCTGCTCTTTATCCT GGACCTGGTCATCTGCCTGCCTGGGACTGGCCAAGCGCTCCAAGTGTCTCCTGGCCTCGATGCTGTG CTGTGGGGCACTGAGCCTGCTCCTCAGTTGGGCATCCCTGGCCGCTGATGGCTCTGCGGCAGTGGCCACCAGTGA CTTCTGTGTGGCTCCTGACACCTTCATCCTGAACGTCACGGAGGGCCAGATCAGCACAGAGGTGACTCGCTACTA  ${\tt CCTGTATTGCAGCCAGAGTGGAAGCAGCCCCTTCCAGCAGACCCTGACCACCTTCCAGCGCGCACTTACCACCAT}$ GCAGATCCAGGTCGCGGGGCTGCTGCAGTTTGCCGTGCCCCTCTTCTCCACTGCAGAGGAAGACCTGCTTGCAAT CCAGCTCCTGCAGACTCCTCAGAGTCCAGCCTTCACCAGCTGACCGCCATGGTGGACTGCCGAGGGCTGCACAA GGATTATCTGGACGCTCTTGCTGGCATCTGCTACGACGGCCTCCAGGGCTTGCTGTACCTTGGCCTCTTCTCCTT  ${\tt CCTGGCCGCCTTCGCCTTCTCCACCATGATCTGTGCAGGGCCAAGGGCCTGGAAGCACTTCACCACCAGAAACAG}$ AGACTACGATGACATTGATGATGACCCCTTTAACCCCCAAGCCTGGCGCATGGCGGCTCACAGTCCCCCGAG GGGACAGCTTCACAGCTTCTGCAGCTACAGCAGTGGCCTGGGAAGTCAGACCAGCCTGCAGCCCCGGCCCAGAC CATCTCCAACGCCCCTGTCTCCGAGTACATGAACCAAGCCATGCTCTTTGGTAGGAACCCACGCTACGAGAACGT TGAGCACCTGAGGCACTACGGGAATCAGTTTCCAGCC<u>TAA</u>CAGACTTTCGGGGGGTTCCTGCCTCCTTTTTCCGTT CTGGTTTTTAATTAGTGCAAATACAAGCTGCGTTTCTTTAATAGAAACCAAAGGCATCTGGAGCCCGAGAGGCCT CCTGCTGGGCAGAGGAGCAGCTGGGATTCCCGACCAAAGCCCCAGGGGGTGCAGAAGACTCACCACGCGGGCCAG CCTCTCTCTTTTGCCCTGCTCTCCACACCAGAAATGCCCCCAGGTGCTTGGCTGCCTCAGAGGTACCATCCCTGA GCTGGCTGCCCTGCCCCTACGCCTCGCCCTTGCCAGGAGGGGAGTGGCAGTGAGGAGGGGGCCAGG TCAGGCACCACCATCAAGAGAGCTGTGTGTTCTCTCTGGTCCCACAACGATGACTCTGCCTCTTGTCAGCCCAGC CAAGAGCCCAGACGACCCCTCTGTCCTCGTTCCCTGTTCCCTGCAGGTAACATGAGAAGGGCTGATCAG GAGATGCTCTTTAAGAAGTTCGCACCCCTGCTGACACCAGAACAAGCCAAATCAGAGTTCCAGGGCCAGACAGGC TCTTCCTGGGCCACAGAGGGGAGGCATCAGGAAAGCTCTGCAGTGGGGGGCTGGTGGCTCCGGGGCTGGGGGGATC ACAGGCTGGTGAACCCCGGTGGGAACAGAGGTGAAAGCCTGCCACATTCCGCCTGTCTCCCTAACCCTCCATTGC CTCGCCTCTATTCCAGAATCAATGCTGCAGAATGTGTTAGCTGCAGATAGGCATGGTCTCAGGTATGAACAGACA CTTTGAAACGACTTTAGGTCTTTCTTTTCTCCAGTGTTTTAAACATGTTGATTATCCAAAGAATTGAAACTCCTA GCACATCCAGTTTTTACAACAGATTTGCAGCTCATTCCTTACCCTGGTTAGGTCACTACTTTTGCAGATTTTGCT GGCACTGATCTGGAGATCTGGAGGAGGAGGAGGAGGGGTCGATTCTTAAATAAGGATCAGTGAGGCAT CCTGTCCCAAGCTACTGTTTGGTGGGGATCTGGGTTCATCTCACCCACAGAGGAGGATCTTTAAGAGGAGAAAA AAGCCAAGAGGGAAAGCCAGAGTTCCCTGTTCTAGGGGACTAGCCAAATGCCTACATCAGCTGTCCCCTCCTGT TGTCTCCAAGTAAGTTTGCCAGAAAAGGTTTTAGCAAAGTGCTACAACTGTGTCTTTATAGGAGGATAGGCCTCT TGTCCCCCAATACTGCCTGTTGAGGGACCAGAGTTGGGGTCTTTGGTGCTTCCAACCTCCTGCCAACCTGGAGTT ACCACCTGTCATCAAAACATGGACAGCAGGGTGTTCTCAGCTCCCAGCGAAGCCTCCACAACAGAATGGGGCCAC AGGGCAGCCGGGACTCCCTGTCTCACCTACATTAACCCATGCATACTGTATGCCATAAACTCACTTTGGTATATC CGCGTCACATGCAGAGGGAACTCTGCGACGTCAAAGTGTTGCTTCTTAAAGTTTCATTATTGGCAACTAGAGGG TTGTTTTTAATGCATGGAAACTAAACAGATTCCTCGGGGAGTTCCTGAAGGAACCAGGTGGGCAAACCTTTGCTT ATATACATGCGGCCTCACCTGGAAGAGAAATAAACCACTTGTACT

## 1678/2682 FIGURE 1527

MQASRVDYIAPWWVVWLHSVPHVGLRLQPVNSTFSPGDESYQESLLFLGLVAAVCLGLNLIFLVAYLVCACHCRR DDAVQTKQHHSCCITWTAVVAGLICCAAVGVGFYGNSETNDGAYQLMYSLDDANHTFSGIDALVSGTTQKMKVDL EQHLARLSEIFAARGDYLQTLKFIQQMAGSIVVQLSGLPVWREVTMELTKLSDQTGYVEYYRWLSYLLLFILDLV ICLIACLGLAKRSKCLLASMLCCGALSLLLSWASLAADGSAAVATSDFCVAPDTFILNVTEGQISTEVTRYYLYC SQSGSSPFQQTLTTFQRALTTMQIQVAGLLQFAVPLFSTAEEDLLAIQLLINSSESSLHQLTAMVDCRGLHKDYL DALAGICYDGLQGLLYLGLFSFLAALAFSTMICAGPRAWKHFTTRNRDYDDIDDDDPFNPQAWRMAAHSPPRGQL HSFCSYSSGLGSQTSLQPPAQTISNAPVSEYMNQAMLFGRNPRYENVPLIGRASPPPTYSPSMRATYLSVADEHL RHYGNQFPA

### 1679/2682 FIGURE 1528

**ATG**GATGAAGAACCTGAAAGAACTAAGCGATGGGAAGGAGGCTATGAAAGAACATGGGAGATTCTTAAAGAAGAT GAATCTGGATCACTTAAAGCTACAATAGAAGACATTCTATTCAAGGCAAAGAGAAAAAGAGTATTTGAGCACCAT GGACAAGTTCGACTTGGAATGATGCGCCACCTTTATGTGGTAGTAGATGGATCAAGAACAATGGAAGACCAAGAT  $\verb|TTAAAGCCTAATAGACTGACGTGTACTTTAAAGTTGTTGGAATACTTTGTAGAGGAATATTTTGATCAAAATCCT|$ ATTAGTCAGATTGGAATAATTGTAACTAAGAGTAAAAGAGCTGAAAATTGACTGAACTTTCAGGAAACCCAAGA AAACATATAACGTCTTTGAAGAAAGCTGTGGATATGACCTGCCATGGAGAGCCATCTCTTTATAATTCCCTAAGC ATAGCTATGCAGACTCTAAAACACATGCCTGGACATACAAGTCGAGAAGTACTAATCATCTTTAGCAGCCTTACA ACTTGCGATCCATCTAATATTTATGATCTAATCAAGACCCTAAAGGCAGCTAAAATTAGAGTATCTGTTATTGGA TTGTCTGCAGAAGTTCGCGTTTGCACTGTACTTGCTCGTGAAACTGGTGGCACGTACCATGTTATTTTAGATGAA AGCCATTACAAAGAGTTGCTCACACATCATGTTAGTCCTCCTCCTGCTAGCTCAAGTTCTGAATGCTCACTTATT CGTATGGGATTTCCTCAGCACACCATTGCTTCTTTATCTGACCAGGATGCAAAACCCTCTTTCAGCATGGCGCAT CTACCTGTTGAATGTAAAATCTGTGGTCTTACTTTGGTGTCTCCCCACTTGGCACGGTCTTACCATCATTTG TTTCCTTTGGATGCTTTTCAAGAAATTCCCCTAGAAGAATATAATGGAGAAAGATTTTGTTATGGATGTCAGGGG GAATTGAAAGACCAACATGTTTATGTTTTGTGCTGTGCCAAAATGTTTTCTGTGTGGACTGTGATGTTTTTGTT CATGATTCTCTACACTGTTGCCCTGGCTGTATTCATAAGATTCCAGCTCCTTCAGGTGTT**TGA** 

## 1680/2682 FIGURE 1529

MDEEPERTKRWEGGYERTWEILKEDESGSLKATIEDILFKAKRKRVFEHHGQVRLGMMRHLYVVVDGSRTMEDQD LKPNRLTCTLKLLEYFVEEYFDQNPISQIGIIVTKSKRAEKLTELSGNPRKHITSLKKAVDMTCHGEPSLYNSLS IAMQTLKHMPGHTSREVLIIFSSLTTCDPSNIYDLIKTLKAAKIRVSVIGLSAEVRVCTVLARETGGTYHVILDE SHYKELLTHHVSPPPASSSSECSLIRMGFPQHTIASLSDQDAKPSFSMAHLDGNTEPGLTLGGYFCPQCRAKYCE LPVECKICGLTLVSAPHLARSYHHLFPLDAFQEIPLEEYNGERFCYGCQGELKDQHVYVCAVCQNVFCVDCDVFV HDSLHCCPGCIHKIPAPSGV

# FIGURE 1530

1682/2682 FIGURE 1531

 ${\tt MQGIWLPPSFLAVCDTEEVSLFLELCFKIHVTCKAVLICDYGPMELGQSLWEAEGKDPGHFR}$ 

#### 1683/2682 FIGURE 1532

# 1684/2682 FIGURE 1533

MKFVPCLLLVTLSCLGTLGQAPRQKQGSTGEEFHFQTGGRDSCTMRPSSLGQGAGEVWLRVDCRNTDQTYWCEYR GQPSMCQAFAADPKPYWNQALQELRRLHHACQGAPVLRPSVCREAGPQAHMQQVTSSLKGSPEPNQQPEAGTPSL RPKATVKLTEATQLGKDSMEELGKAKPTTRPTAKPTQPGPRPGGNEEAKKKAWEHCWKPFQALCAFLISFFRG

## 1685/2682 FIGURE 1534

## 1686/2682 FIGURE 1535

 $\label{thm:converse} $$ MAQHGAMGAFRALCGLALLCALSLGQRPTGGPGCGPGRLLLGTGTDARCCRVHTTRCCRDYPGEECCSEWDCMCV $$ QPEFHCGDPCCTTCRHHPCPPGQGVQSQGKFSFGFQCIDCASGTFSGGHEGHCKPWTDCTQFGFLTVFPGNKTHN $$ AVCVPGSPPAEPLGWLTVVLLAVAACVLLLTSAQLGLHIWQLRSQCMWPRETQLLLEVPPSTEDARSCQFPEEER $$ GERSAEEKGRLGDLWV $$$ 

### 1687/2682 FIGURE 1536

GGCACGAGGGACCTGAAGCTGGGGAACATGGTGCTCAACAAGAGGACACCTCGGATAACCATCACCAACTTCTGC  $\tt CTCGGGAAGCATCTGGTGAGCGAGGGGGACCTGCTGAAGGACCAGAGAGGGAGCCCTGCCTACATCAGTCCCGAC$ GTGCTCAGCGGCCGGCCGTACCGTGGCAAGCCCAGTGACATGTGGGCCCTGGGCGTGGTGCTCTTCACCATGCTG TATGGCCAGTTCCCCTTCTACGACAGCATCCCGCAGGAGCTCTTCCGCAAGATCAAGGCTGCCGAGTATACCATT CCTGAGGATGGACGGTTTCTGAGAACACCGTGTGTCTCATCCGGAAGCTGCTGGTCCTTGACCCCCAGCAGCGC  $\tt CTGGCCGCCGACGTCCTGGAGGCCCTCAGTGCCATCATTGCATCATGGCAGTCCCTGTCATCTCTGAGTGGG$ CCTTTGCAAGTGGTTCCTGACATTGATGACCAAATGAGCAATGCGGATAGCTCCCAGCAGGCGAAGGTGACGGAG GACGCCGGGAGCTGGGTACCCAAGCGGCAGTTCGGCAGCGCACCACCGGTGCGACGGCTGGGCCACGACGCACAC CCCATGACCTCCTTGGACACGGCCATCCTGGCGCAGCGCTACCTGCGGAAA<u>TAA</u>CAGCCTCAGCCGGGGCCACCA GCACTGCTGCCACTTCTTCCAGCCCCAGCCAAAGGCGTGGCTGTCAGGGCTGGGCCCTGTAGTGCTGGACTCTCC CGGGCCACAATAGGGACAGGGCAGGGACAGGGACAGCCCAGGTCACACGTGGGGTCAGCAGAGGTACCACGAAGC TACCTTTTGGGATGATTGCTCGATTGTTTGGTTTTTAAATCTGAGAAGCCTAGATAACTAATCTGCTTTTAATCA ACCCCACTCCAGGGCCTTCCCCAGCGGCCACCAACTGACCTGGGGCGCTGCTCCCCACAGTCCAAATAAGCTGAA AGTGCAGCTCGCTGCAGGCCCCAGAGCGAGCTTCCCCTCCTCCTCCTCCCAGGCCCCTGCCACAGCCTCTTT CCGTCCCTCTCTTCTGATCCAGGCCCCTCAGTCCAAGCTTTGGAAAACCTTCACCTCATCTTAAACCGAACTCA AATATATTTTTTTTTTTCCATACCAACTTCTCTCCCATCTCTAGGTGGCTCAGTCCATGGCCACTCCCTGCCCC CTGCCAGTCCCTGTCCCCTTTCAGCCCACCAGTCCCTCTCTGCTGCCGGTGATGGGAGGCCTTTCTAGACCTGGC TCTTTCTCTCCCGTCTCAGTGGCTTCTCTGAGGTGCTGTACACGCGCGTTAACCTGTTCCCTTCTCTATCCTTCC  $\tt CCGTGGTACTGAGCTCACGTGGACTCCCAGTGCGAAGGGGCCCATGGGTTGGGCTGCAGGCCTGGCCGTGAGCGG$ GGGCTGCCTGCACGCTCCCCTAGCCTACTCTTGTGTTTAGGGGATGGTGGGAACATATCCCAGTGCCCTTGCCTC ATAATAGATGTGGTGACTCTCCCGGTAGACCCTAGCAAGGGTCCTCCATGGTGGTGAGGGACTCAGGAGAATTGT AGGGATTGGGGGACCCTGCCTGGCCTGAGAACAGCCCTGCTGCCCTTTTGAGCCGAGATTTTGAAGTGGAT TGCCAAGCAAAGACCCTTCCCCAGAGGCCTACCCCCCATATGTCCTCAGAGAGGCTGAGTGTCCCCTCCAGGCAG TCATGGGCCCTGAGGCCCTCCTGCCTGGCCCTGCTCCCCAGTGGGGAGGTGACTGTGTTTCCCAGAGTGTGAGC CGCTCTCCTCCCCTAAAAAGCTGACTCACTGTGAGTGACCTTGGGCAAGTTCCCAAACCTCCTTGTGCCTCAGT TTCCCCATCTGGAAAAAATGGGGCCACCTCTTGCCAGCAGTAGCAGGGCTGCCCACGCCCCTTTCTCCCCATGCC  ${\tt CCATCCAGCACTTGGGGGACTCATGCCTCTGCCTCAGTGGGGCCCTGTGGGAGCCTACTGGAGCCCAGCACTTACTC}$ CCCCTGAGCAGCGAGCCTGCGTCTGTCTCAGCTGTCCAGCGCTGAGGGCCAGGGTCTTGTGCTGTGGGGCTGGGG GATGCCCTCTTTCTATATTTATTTCATAGAAAGTCTCCTGCGGGAGCGGAAATGCAGTCCGGCCTAGGGCTCCC AGCCCTTGACTGTCCTCCTGTGAGGGCCTGAAGCTGGGCCAGGGCCCGTCGCAGCGGAGCCCCCTCTCAGCAGCC CACCGGGTCCCTCCAGGCTGCTGCCGTGCGTGTCTTTCTCCTCCTTTTCAAAGCAATAGCCGCCGGGTCTGCA AAGCCCTGTCAGACAGACTGGGCCCTTCCAAGGTCAAGCCATGTGTCTGATGACATTCCTGGTGAAGCAAAGGAG .AGGAGGATGGGTCAGCCCTCACTGGGTGTCACACACTGAGAGAAGTCCTATTGTAAAGAAACGGAAAAAGTCACA AAAAAGTTTGTATAAAGACATATTTTTGTACTACATGGGGACTCTTCCTGCATGTCAGCAATAAAACTTCCTGAT СТССААААААААААААААААААААААААА

## 1688/2682 FIGURE 1537

MVLNKRTHRITITNFCLGKHLVSEGDLLKDQRGSPAYISPDVLSGRPYRGKPSDMWALGVVLFTMLYGQFPFYDS
IPQELFRKIKAAEYTIPEDGRVSENTVCLIRKLLVLDPQQRLAAADVLEALSAIIASWQSLSSLSGPLQVVPDID
DQMSNADSSQQAKVTEECSQYEFENYMRQQLLLAEEKSSIHDARSWVPKRQFGSAPPVRRLGHDAQPMTSLDTAI
LAORYLRK

#### 1689/2682 FIGURE 1538

## 1690/2682 FIGURE 1539

#### 1691/2682 FIGURE 1540

 $\tt GTGCTGAGCCCGCTTCGGCCGGGACG\underline{ATG} \tt GTGAAGTATTTCCTGGGCCAGAGCGTGCTCCGGAGTTCCTGGGACC$ AAGTGTTCGCCGCCTTCTGGCAGCGGTACCCGAATCCCTATAGCAAACATGTCTTGACGGAAGACATAGTACACC GGGAGGTGACCCTGACCAGAAACTGCTGTCCCGGCGACTCCTGACCAAGACCAACAGGATGCCACGCTGGGCCG AGCGACTATTTCCTGCCAATGTTGCTCACTCGGTGTACGTCCTGGAGGACTCTATTGTGGACCCACAGAATCAGA  $\verb|CCATGACTACCTTCACCTGGAACATCAACCACGCCCGGCTGATGGTGGTGGAGGAACGATGTGTTTACTGTGTGA| \\$ CTGTCCAGGAATTTGGTCTTGCCCGGTTCAAAAGCAACGTGACCAAGACTATGAAGGGTTTTGAATATATCTTGG CTAAGCTGCAAGGCGAGGCCCCTTCCAAAACACTTGTTGAGACAGCCAAGGAAGCCAAGGAGAAGGCAAAGGAGA CGGCACTGGCAGCTACAGAGAAGGCCAAGGACCTCGCCAGCAAGGCGCCACCAAGAAGCAGCAGCAGCAAC TACTTTATCATTAAAAATCAACTTCCAGCCCTGTCTGCTGTCTACGTGGTGGGGTTGTGGGGATGCAGTTTGGCAT  $\tt CTGCAGTACACCAAGCACATGATTCATGTCTGAGCCAGGTCTGCTTATTCTCCCATTGGGCAGCTGAGGACCGAG$ GCACAGAGGTGCGGTGACTTGCCCGGGGCTCCAGGTAGCCTGCAGGTTAACTGGCGGTAAGTGCTAGACTGTAAG CCCGACAAGGGCAGGGCTTTTGGTTTTGTTCTCTGATGTGTCTCAGTATCTAGCACATAATAGACACTCAATAAA TACTTGTTGAATTCAAA

# 1692/2682 FIGURE 1541

 $\label{thm:powerlement} MVKYFLGQSVLRSSWDQVFAAFWQRYPNPYSKHVLTEDIVHREVTPDQKLLSRRLLTKTNRMPRWAERLFPANVA\\ HSVYVLEDSIVDPQNQTMTTFTWNINHARLMVVEERCVYCVNSDNSGWTEIRREAWVSSSLFGVSRAVQEFGLAR\\ FKSNVTKTMKGFEYILAKLQGEAPSKTLVETAKEAKEKAKETALAATEKAKDLASKAATKKQQQQQQFV$ 

#### 1693/2682 FIGURE 1542

ACAGTTTCAAACCTACACGTTGATGTTCCAAAGGATTTGACCAAACCTGTGGTAACAATCTCTGATGAACCAGA CATATTATATAAGCGCCTCTCGGTTTTGGTGAAAGGTCACGATAAGGCTGTATTGGACAGTTATGAATATTTTGC TGTGCTTGCTGCTAAAGAACTTGGTATCTCTATTAAAGTACATGAACCTCCAAGGAAAATAGAGCGATTTACTCT TCTCCAATCAGTGCATATTTACAAGAAGCACAGAGTTCAGTATGAAATGAGAACACTTTACAGATGTTTAGAGTT AGAACATCTAACTGGAAGCACAGCAGATGTCTACTTGGAATATATTCAGCGAAACTTACCTGAAGGGGTTGCCAT GGAAGTAACAAAGACACAATTAGAACAGTTACCAGAACACATCAAGGAGCCAATCTGGGAAACACTATCAGAAGA GTATGTTTAAGTGGAGAGTGCTTCCAGCTGAGATGATTTGAGTCTGTCCTAACTGCTCCATTGAGTTCTCGTGCC GTTCTGATTTCAGCAAACATGAGCAAACCACTTTGACTGAAAGCAGAAAGAGTGAAAATTCTATTTTGTTACGCT ACTGGTGTTCAATTATTAGTTTGTACCATTTTTAATTTATGTCAGTTGATGCATCTGAAAATAAGTGCTTGGAGT GTTCGTACCCTTATTTTTTTTTAAGATTCCTAGAAGGAATCTTTGGTTAATTCAGATTGAGCAGTTAAAGTTTTT GCTATTTACCTTTGTGCAGGCTGGCAŢATGCTAATTTGGGGGGTGGTAACCAACCGATTTTATCTCATGTAAGCAT TACATTTTGAAGACTGAATATACTTCACAGCAGATCAAACACATTTATGGCATGCACTGACCTCTTCTTGGAGCC CAGAACTTTATAGAGTTGCCTACCAGGGTTACTGTAATGGAATTTATGATCTTAAGAAATTACTAGTTGTATTAT TTATCCTATGATTCATTCAATAAGCTTTTACTGCATAAACTTTACATCCAGCACTGTAGTTAAGTACCCAA AATTGAATAGAAATAATGGCTTTTGAAAATTGCACAAAGCAGGCCAGGCACGGTGGCTCACGCCTGTAATCCCAG CACTTTGGGAGGCCGAGGCAGGCGGATCACGAGGTCAAGAGATCCAGACCATCCTGGCTAACACGGTGAAACCCC GTCTCTAATAAAAATACAAAAATTAGCTGGACATGGTGGCACGTGCCTGTAATCCCAGCTACTCAGGAGGCTGAG GCAGGAGAATCGCGTGAACCCGGGCCCGGTGGAGGCTGCAGTGAGACGAGATCGCGCCACTGCACTCCAGCCTGG GAAATGAAATAGTGGCTAAAGCCCTGAAAGAGGCAAGACTACAATGGGCTGAAACAGTTGGTATAGCAACCCCAG AGAAGTGCTTCATTTTCTTTTTATAGTAGAAGCAGGTCCATGTCTTTTGTGGTTTCCTGCACATCTTTGGAGTAG TTATGACTTCTCAGTTTTTCCCCCCCTTAAACTGCATTGCCTATTCTTTTTTCCTGACATGCTATCAGGTATCAGT GTGTTGAATACATAATGCTTGTGTATCAGACTTACGTTACTGTCATCACCATTAAAAGAATTGCAGCCTTGTGCC CCATGACCTTCA

# 1694/2682 FIGURE 1543

 ${\tt MAARTAFGAVCRRLWQGLGNFSVNTSKGNTAKNGGLLLSTNMKWVQFSNLHVDVPKDLTKPVVTISDEPDILYKR\\ LSVLVKGHDKAVLDSYEYFAVLAAKELGISIKVHEPPRKIERFTLLQSVHIYKKHRVQYEMRTLYRCLELEHLTG\\ STADVYLEYIQRNLPEGVAMEVTKTQLEQLPEHIKEPIWETLSEEKEESKS$ 

### 1695/2682 FIGURE 1544

ATGCCGTCGGTGGTGTTGCCGCTGAGGACCCGGACAGCCGTTACATCCTTGCTAAGCCCCACTCCGGCTACAGCT
CTTGCTGTCAGATACGCATCCAAGAAGTCGGGTGGTAGCTCCAAAAACCTCGGTGGAAAGTCATCAGGCAGACGC
CAAGGCATTAAGAAAATGGAAGGTCACTATGTTCATGCTGGGAACATCATTGCAACACACGCGCCATTTCCGCTGG
CACCCAGGTGCCCATGTGGGTGTTGGGAAGAATAAATGTCTGTATGCCCTGGAAGAGGGGGATAGTCCGCTACACT
AAGGAGGTCTACGTGCCTCATCCCAGAAACACGGAGGCTGTGGATCTGATCACCAGGCTGCCCAAGGGTGCTGTG
CTCTACAAGACTTTTGTCCACGTGGTTCCTGCCAAGCCTGAGGGCACCTTCAAACTGGTAGCTATGCTT<u>TGA</u>

# 1696/2682 FIGURE 1545

 ${\tt MASVVLALRTRTAVTSLLSPTPATALAVRYASKKSGGSSKNLGGKSSGRRQGIKKMEGHYVHAGNIIATQRHFRWHPGAHVGVGKNKCLYALEEGIVRYTKEVYVPHPRNTEAVDLITRLPKGAVLYKTFVHVVPAKPEGTFKLVAML}$ 

#### 1697/2682 FIGURE 1546

# 1698/2682 FIGURE 1547

 ${\tt MANLFIRKMVNPLLYLSRHTVKPRALSTFLFGSIRGAAPVAVEPGAAVRSLLSPGLLPHLLPALGFKNKTVLKKRCKDCYLVKRRGRWYVYCKTHPRHKQRQM$ 

#### 1699/2682 FIGURE 1548

 ${\tt TAGTTTGCGTTTTCACCTGGTCGCCCGGCGGCC} \underline{{\tt ATC}} {\tt GCGGCCGTTCTGAAGCCGGTGCTGCTGGGCCTTCGAGAT}$ GCGCCGGTGCACGGCAGCCCCACAGGGCCGGGTGCCTGGACTGCTAGCAAGCTGGGCGGCATTCCGGATGCTCTG CCGCTGGAAGGCTCCCCGTTTCACCGTCTGCTGCACGTGTTCGCGTGCGCCTGCCCCGGCTGTAGCACCGGCGGT GGAAACAGCCTTGCAGCTGAGGACTGGTGTGAAGGTGCTGATGACTGGGGAAGTGATACTGAGGAGGGGCCCTTCA CTCCGCCTGCAGGATGCTGTCCTGGGTGCCCATCCTGTGCCTCCTGGGCTGCCGCTCTTCCTGCCCTACTAC ATCTGTGTTGCAGATGAGGATGATTACAGGGACTTTGTCAACCTGGATCATGCCCACAGCCTTCTGAGGGACTAT CAGCAGAGAGAGAGCATTGCCATGGATCAGTTGCTTTCCCAAAGCCTTCCTAATGATGGTGATGAAAAATATGAG  ${\tt AAGACCATAATTAAAAGTGGAGATCAGACGTTTTACAAATTCATGAAGCGAATTGCTGCTTGTCAGGAGCAGATT}$  $\tt TTGAGGTATTCCTGGAGTGGAGAGCCACTCTTTTTGACCTGCCCTACATCAGAAGTCACCGAGCTCCCAGCCTGC$  ${\tt AGCCAGTGTGGAGGCCAAAGGATATTTGAGTTTCAGCTTATGCCAGCACTGGTCAGCATGCTCAAGAGTGCTAAT}$ TTAGGTCTTTCTGTGGAATTTGGAACAATTCTAGTTTACACATGTGAGAAGAGTTGCTGGCCCCCAAATCATCAG  ${\tt ACTCCCATGGAAGAATTTTGTATTATACAAGAAGACCCAGATGAATTATTGTTTAAG\underline{{\tt TAG}}{\tt AGCATTTCCTTTTAT}$ 

# 1700/2682 FIGURE 1549

MAAVLKPVLLGLRDAPVHGSPTGPGAWTASKLGGIPDALPTVAAPRPVCQRCGQPLALVVQVYCPLEGSPFHRLL HVFACACPGCSTGGARSWKVFRSQCLQVPEREAQDAQKQGNSLAAEDWCEGADDWGSDTEEGPSPQFTLDFGNDA SSAKDVDWTARLQDLRLQDAVLGAAHPVPPGLPLFLPYYICVADEDDYRDFVNLDHAHSLLRDYQQREGIAMDQL LSQSLPNDGDEKYEKTIIKSGDQTFYKFMKRIAACQEQILRYSWSGEPLFLTCPTSEVTELPACSQCGGQRIFEF QLMPALVSMLKSANLGLSVEFGTILVYTCEKSCWPPNHQTPMEEFCIIQEDPDELLFK

#### 1701/2682 FIGURE 1550

CCTCGCCCGCCTACGCGGGAACCCAACCGCGGCGACCGGACGTGCACTCCTCCAGTAGCGGCTGCACGTCGTGC

AATG
GCCCGCTATGAGGAGGTGAGCGTGTCCGGCTTCGAGGAGTTCCACCGGGCCGTGGAACAGCACAATGGCAA
GACCATTTTCGCCTACTTTACGGGTTCTAAGGACGCCCGGGGGGAAAAGCTGGTGCCCCGACTGCGTGCAGGCTGA
ACCAGTCGTACGAGAGGGGCTGAAGCACATTAGTGAAGGATGTGTTCATCTACTGCCAAGTAGGAGAAAAGCC
TTATTGGAAAGATCCAAATAATGACTTCAGAAAAAAACTTGAAAGTAACAGCAGTGCCTACACTACTTAAGTATGG
AACACCTCAAAAAACTGGTAGAATCTGAGTGTCTTCAGGCCAACCTGGTGGAAATGTTGTTCTCTGAAGATTAAAGA
TTTTAGGATGGCAATCATGTCTTGATGTCCTGATTTGTTCTAGTATCAATAAACTGTATACTTGCTTTGAATTCA
TGTTAGCAATAAATGATGTTAAAAAAAACTGGCATGTGTCTAAACAATAGAGTGCTATTAAAATGCCCATGAACCT
TTAGTTTGCCTGTAATACATGGATATTTTTAAGATATAAAGAAGTCTTCAGAAATAGCAGTAAAGGCTCAAAAGGA
ACGTGATTCTTGAAGGTGACGGTAATACCTAAAAACTCCTAAAAGGTGCAGAGCC

# 1702/2682 FIGURE 1551

 ${\tt MARYEEVSVSGFEEFHRAVEQHNGKTIFAYFTGSKDAGGKSWCPDCVQAEPVVREGLKHISEGCVFIYCQVGEKPYWKDPNNDFRKNLKVTAVPTLLKYGTPQKLVESECLQANLVEMLFSED}$ 

#### 1703/2682 FIGURE 1552

TGGCTTTGAGACAACGTGATTCTCCGCAGCTGGTCGCCTACCCGTGATGTTCTGCCCACGTCGAGACCTGAGCTG ATGGTGAAGGAGAAGGAGACACAGAAGTGATGCAGCAGGAGACAGTTCCAGTTCCTGTACCTTCAGAGAAAACCA AGAAGAAAATTACTGATGTTCTTGCAAAATCAGAACCAAAACCAGGGTTACCTGAAGACCTACAGAAGCTGATGA AGGACTATTATAGCAGCAGACGCTTGGTGATTGAATTAGAAGAACTGAACCTGCCAGACTCCTGTTTCCTCAAGG CCAATGATTTGACTCACAGTCTTTCCTCATACCTAAAAGGAATTTGTCCTAAGTGGGTAAAACTTAGGAAGAACC ACAGTGAGAAAATCGGTCCTGATGCTGATCATCTGCAGCTCGGCCGTCCGAGCCCTGGAGCTCATTAGGTCGA TGACAGCATTCAGAGGAGACGGCAAAGTTATAAAATTATTTGCAAAGCACATAAAGGTCCAGGCGCAGGTAAAGT TGCTGGAGAAGCGTGTGGTGCACCTGGGTGTAGGAACTCCGGGGAGAATTAAAGAACTTGTTAAACAAGGTGGCC TTAATTTGAGCCCCTTAAAATTTCTGGTTTTTGACTGGAACTGGAGAGATCAGAAGTTGAGGAGAATGATGGACA TTCCCGAGATAAGAAAGGAGGTATTCGAACTTCTGGAAATGGGAGTGCTCAGTCTGTGCAAGTCAGAATCCTTGA  ${\tt AACTGGGCCTTTTC} \underline{{\tt TAA}}{\tt GTCTGTGTCCTAATGAAGATTCCAGTTTTCACAGTAGAAGTTGCATCTTATTTAATGA}$ CTCTGATACATTGCAAGCACTCAGTAAATATCAGCAAATAGTTTATGTTAATTGTGTCAACAGATGGATCACTGG AATGTGGGGATTCTGAAACAGAAATGAAACTGTCCTTTTGACAACTCTCTTATATAATAAAGTATCACCGGCTTG TGTATGAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

# 1704/2682 FIGURE 1553

MADDLGDEWWENQPTGAGSSPEASDGEGEGDTEVMQQETVPVPVPSEKTKQPKECFLIQPKERKENTTKTRKRRK KKITDVLAKSEPKPGLPEDLQKLMKDYYSSRRLVIELEELNLPDSCFLKANDLTHSLSSYLKGICPKWVKLRKNH SEKKSVLMLIICSSAVRALELIRSMTAFRGDGKVIKLFAKHIKVQAQVKLLEKRVVHLGVGTPGRIKELVKQGGL NLSPLKFLVFDWNWRDQKLRRMMDIPEIRKEVFELLEMGVLSLCKSESLKLGLF

#### 1705/2682 FIGURE 1554

TGATTCTGACAGTGAGGTTGACAAAAGTTAAAGAGGAAAAAGCAAGTTGCTCCAGAAAAACCTGTAAAGAAAACA AAAGACAGGTGAGACTTCGAGAGCCCTGTCATCTTCTAAACAGAGCAGCAGCAGCAGAGATGATAACATGTTTCA GATTGGGAAAATGAGGTACGTTAGTGTTCGCGATTTTAAAGGCAAAGTGCTAATTGATATTAGAGAATATTGGAT GGATCCTGAAGGTGAAATGAAACCAGGAAGAAAAGGTATTTCTTTAAATCCAGAACAATGGAGCCAGCTGAAGGA  ${\tt ACAGATTTCTGACATTGATGATGCAGTAAGAAAACTG} \underline{{\tt TAA}}{\tt AATTCGAGCCATATAAATAAAACCTGTACTGTTCT}$ AGTTGTTTTAATCTGTCTTTTTACATTGGCTTTTGTTTTCTAAATGTTCTCCAAGCTATTGTATGTTTGGATTGC AGAAGAATTTGTAAGATGAATACTTTTTTTAATGTGCATTATTAAAAATATTGAGTGAAGCTAATTGTCAACTT TATTAAGGATTACTTTGTCTGCCCACCACCTAGTGTAAAATAAAATCAAGTAATACAATCTTAACTGTTGTGGCC TTTTTTGATCATAAGAGTTGGTACTGTTTAAGGCCAAAAGTAACAGTTTTTATAGATCTTTTAGTTTCAACTCAG CTTTTACAATAAAAAGGATTTGTATTGCATTGAGTTTATAAACTTTTGGTTTGTGAACTTCATATTTGATCTTTT TCCTTTAATAACTTAATCTCTTCATGTTCAGTTTTTACTTCACTCTTTATTCTTTTCTTTGATTATGGTATGCTT ATTTGGAAAGTCAGTGAAACTGTCAAAATGTTATCTCAATAAGATACTTATATGAGAACTACAATCACCGAATCT  ${\tt CCATAGTGTTCTGTGTAGTTATTGCTTAGTCTGCAGAAAATAATGACTTAGATGAGATGTCTGACTTGCTTTCAC}$ TTATTAAACATGTTCACCATGGGATGATGTCTGTAACATCAGATATTGTTCAACTAGACTAGGATTTAATAAAAA 

# 1706/2682 FIGURE 1555

 ${\tt MPKSKELVSSSSSGSDSDSEVDKKLKRKKQVAPEKPVKKQKTGETSRALSSSKQSSSSRDDNMFQIGKMRYVSVRDFKGKVLIDIREYWMDPEGEMKPGRKGISLNPEQWSQLKEQISDIDDAVRKL}$ 

#### 1707/2682 FIGURE 1556

# 1708/2682 FIGURE 1557

 $\label{thm:linear} MNVTPEVKSRGMKFAEEQLLKHGWTQGKGLGRKENGITQALRVTLKQDTHGVGHDPAKEFTNHWWNELFNKTAAN\\ LVVETGQDGVQIRSLSKETTRYNHPKPNLLYQKFVKMATLTSGGEKPNKDLESCSDDDNQGSKSPKILTDEMLLQ\\ ACEGRTAHKAARLGITMKAKLARLEAQEQAFLARLKGQDPGAPQLQSESKPPKKKKK$ 

#### 1709/2682 FIGURE 1558A

GTGGACCCAGGGTGGGGAACTACCTCTTCCTCTCCACGCGGTTGAGAAGACCGGTCGGCCTGGGCAACCTGCGCT GAAGATGCCGGGAAAACTCCGTAGTGACGCTGGTTTGGAATCAGACACCGCAATGAAAAAAGGGGAGACACTGCG AAAGCAAACCGAGGAGAAAGAGAAAAAAGAGAAGCCAAAATCTGATAAGACTGAAGAGATAGCAGAAGAGAAGAAGA AACTGTTTTCCCCAAAGCTAAACAAGTTAAAAAAGAAAGCAGAGCCTTCTGAAGTTGACATGAATTCTCCTAAATC GGAGCCCATTGAAAAGAAAGTGGTTTCTTCTAAAACCAAAAAAGTGACAAAAAATGAGGAGCCTTCTGAGGAAGA ACTGAAGAATGGATTTCCTCATCCTGAACCGGACTGTAACCCCAGTGAAGCTGCCAGTGAAGAAAGTAACAGTGA GATAGAGCAGGAAATACCTGTGGAACAAAAAGAAGGCGCTTTCTCTAATTTTCCCATATCTGAAGAAACTATTAA ACTTCTCAAAGGCCGAGGAGTGACCTTCCTATTTCCTATACAAGCAAAGACATTCCATCATGTTTACAGCGGGAA TGGGGAACTGCAAGACAGGAAGAGAGGCCGTGCCCCTCAGGTACTGGTTCTTGCACCTACAAGAGAGTTGGCAAA TCAAGTAAGCAAAGACTTCAGTGACATCACAAAAAAGCTGTCAGTGGCTTGTTTTTATGGTGGAACTCCCTATGG AGGTCAATTTGAACGCATGAGGAATGGGATTGATATCCTGGTTGGAACACCAGGTCGTATCAAAGACCACATACA GAATGGCAAACTAGATCTCACCAAACTTAAGCATGTTGTCCTGGATGAAGTGGACCAGATGTTGGATATGGGATT TTCTGCAACTTGCCCTCATTGGGTATTTAATGTTGCCAAGAAATACATGAAATCTACATATGAACAGGTGGACCT GATTGGTAAAAAGACTCAGAAAACGGCAATAACTGTGGAGCATCTGGCTATTAAGTGCCACTGGACTCAGAGGGC AGCAGTTATTGGGGATGTCATCCGAGTATATAGTGGTCATCAAGGACGCACTATCATCTTTTGTGAAACCAAGAA AGAAGCCCAGGAGCTGTCCCAGAATTCAGCTATAAAGCAGGATGCTCAGTCCTTGCATGGAGACATTCCACAGAA GCAAAGGGAAATCACCCTGAAAGGTTTTAGAAATGGTAGTTTTGGAGTTTTGGTGGCAACCAATGTTGCTGCACG TGGGTTAGACATCCCTGAGGTTGATTTGGTTATACAAAGCTCTCCACCAAAGGATGTAGAGTCCTACATTCATCG ATCCGGGCGGACAGGCAGAGCTGGAAGGACGGGGGTGTGCATCTGCTTTTATCAGCACAAGGAAGAATATCAGTT AGTACAAGTGGAGCAAAAAGCGGGAATTAAGTTCAAACGAATAGGTGTTCCTTCTGCAACAGAAATAATAAAAGC TTCCAGCAAAGATGCCATCAGGCTTTTGGATTCCGTGCCTCCCACTGCCATTAGTCACTTCAAACAATCAGCTGA GAAGCTGATAGAGGAGAAGGGAGCTGTGGAAGCTCTGGCAGCAGCACTGGCCCATATTTCAGGTGCCACGTCCGT AGACCAGCGCTCCTTGATCAACTCAAATGTGGGTTTTGTGACCATGATCTTGCAGTGCTCAATTGAAATGCCAAA TTCACGACGCTGGCAGCTCTCTGTGGCCACAGAGCAACCAGAACTGGAAGGACCACGGGAAGGATATGGAGGCTT CAGGGGACAGCGGGAAGGCAGTCGAGGCTTCAGGGGACAGCGGGACAGAAACAGAAGATTCAGAGGACAGCGGGA AGGCAGTAGAGGCCCGAGAGGACAGCGATCAGGAGGTGGCAACAAAAGTAACAGATCCCAAAACAAAGGCCAGAA GCGGAGTTTCAGTAAAGCATTTGGTCAA<u>TAA</u>TTAGAAATAGAAGATTTATATAGCAAAAAGAGAATGATGTTTGG CAATATAGAACTGAACATTATTTTTCATGCAAAGTTAAAAGCACATTGTGCCTCCTTTTGACCACTTGCCAAGTC CCTGTCTCTTCAGACACAGACAAGCTTCATTTAAATTATTTCATCTGATCATTATCATTTATAACTTTATTGTT TAGAAGATAAAATCAAGCATGTATCTGCCTATACTTTGTGAGTTCACCTGTCTTTATACTCAAAAGTGTCCCTTA ATAGTGTCCTTCCCTGAAATAAATACCTAAGGGAGTGTAACAGTCTCTGGAGGACCACTTTGAGCCTTTGGAAGT TAAGGTTTCCTCAGCCACCTGCCGAACAGTTTCTCATGTGGTCCTATTATTTGTCTACTGAGACTTAATACTGAG CAATGTTTTGAAACAAGATTTCAAACTAATCTGGGTTGTAATACAGTTTATACCAGTGTATGCTCTAGACTTGGA AGATGTAGTATGTTGATGTGGATTACCTATACTTATGTTCGTTTTGATACATTTTTAGCTTCTCATTATAAGGT AATTTCACATGTATAÁGGTGGCTCCATAGCTTTATTTGTAAGTAGGCTGGATAAATGGTGCTTAAATGGTAATGT ACAAATTCATAACTGGAAAGCAAAGAAGAACAAGTATGATTTGGATGATAAAGCATTGTTTTAATGGTGAAAA CTTCACAGATCACTAATGTTTCTAGAGGTTAACTTCAAGTGGGCAAGCTGGGGTTTTTAGGTAGTCAGTGGCCTA 

#### 1710/2682 FIGURE 1558B

#### 1711/2682 FIGURE 1559

WTQGGELPLPLHAVEKTGRPGQPALKMPGKLRSDAGLESDTAMKKGETLRKQTEEKEKKEKPKSDKTEEIAEEEE
TVFPKAKQVKKKAEPSEVDMNSPKSKKAKKKEEPSQNDISPKTKSLRKKKEPIEKKVVSSKTKKVTKNEEPSEEE
IDAPKPKKMKKEKEMNGETREKSPKLKNGFPHPEPDCNPSEAASEESNSEIEQEIPVEQKEGAFSNFPISEETIK
LLKGRGVTFLFPIQAKTFHHVYSGKDLIAQARTGTGKTFSFAIPLIEKLHGELQDRKRGRAPQVLVLAPTRELAN
QVSKDFSDITKKLSVACFYGGTPYGGQFERMRNGIDILVGTPGRIKDHIQNGKLDLTKLKHVVLDEVDQMLDMGF
ADQVEEILSVAYKKDSEDNPQTLLFSATCPHWVFNVAKKYMKSTYEQVDLIGKKTQKTAITVEHLAIKCHWTQRA
AVIGDVIRVYSGHQGRTIIFCETKKEAQELSQNSAIKQDAQSLHGDIPQKQREITLKGFRNGSFGVLVATNVAAR
GLDIPEVDLVIQSSPPKDVESYIHRSGRTGRAGRTGVCICFYQHKEEYQLVQVEQKAGIKFKRIGVPSATEIIKA
SSKDAIRLLDSVPPTAISHFKQSAEKLIEEKGAVEALAAALAHISGATSVDQRSLINSNVGFVTMILQCSIEMPN
ISYAWKELKEQLGEEIDSKVKGMVFLKGKLGVCFDVPTASVTEIQEKWHDSRRWQLSVATEQPELEGPREGYGGF
RGQREGSRGFRGQRDGNRFFRGQREGSRGPRGQRSGGGNKSNRSQNKGQKRSFSKAFGQ

#### 1712/2682 FIGURE 1560

 ${\tt TGCTAAAGCCGCTGAGTGAAGTAAGAACTCTGCTAGAGAGGAA} \underline{{\tt ATC}} {\tt GCTGCTTCATCATCCTCCTCAGCTGG}$ TGGGGTCAGTGGAAGTTCTGTCACTGGATCTGGTTTCAGTGTCTCAGACCTTGCCCCACCACGGAAAGCCCTTTT CACCTACCCCAAAGGAGCTGGAGAGATGTTAGAAGATGGCTCTGAGAGATTCCTCTGCGAATCTGTTTTTAGCTA TCAAGTGGCATCCACGCTTAAACAGGTGAAACATGATCAGCAAGTTGCTCGGATGGAAAAACTAGCTGGTTTGGT  ${\tt AGAAGAGCTGGAGGCTGACGAGTGGCGGTTTAAGCCCATCGAGCAGCTGCTGGGATTCACCCCCTCTTCAGGT} \underline{{\tt TG}}$  $\underline{\textbf{A}} \texttt{TACTGCCTGGATGGTCACCTCTGGTGCGCAGCAAGTGCAAAGCCAGTGGGGGACTTTCTCACAGCTTACATAGC}$ CATCCAGAGATCCACAGCTACGTCACTGAATTGTTAATGCACATTTGTACTTGGTTTCTCTGTATCTATTCACAG GCAACAAATACTTATATGTGTGATCTTTCAGGGAATGTTTTGTTTATTTGTTTTAAAAAGTATTGGGAATCAGAT TAAGACAATCAGTTTCAGAGAACCAGGAGGTTTGGGGTTAAGAGATACTCAAAAATTTTCACAAGCCAAGTAGGG CATATATCAGATTTGGCCAACTGAATGGCGTCTGTCCTGTCATCCATATGGTGCCTGGAAATATTTACCAGTCAA GGTCAAGGTCAGCATCTGTGGTTAAAAATATAGCATTCTGACCTAAAAAAGTTATTTTGCAGATGAATGTGTTTT GATTCTGACTTTTCTAACCTCTTATAGACATGCCAAATGCTGGCAAAAAGAAGTGCTTTTTGGATATGGCAGCA CTTGTAAAAATAAAGCAGTAAGCAAAATCCTTTTAAACACAGAAATCCTGAGTTCTTCTCATTGGTGGACTCAAG 

# 1713/2682 FIGURE 1561

 ${\tt MAASSSSSSAGGVSGSSVTGSGFSVSDLAPPRKALFTYPKGAGEMLEDGSERFLCESVFSYQVASTLKQVKHDQQ} \\ {\tt VARMEKLAGLVEELEADEWRFKPIEQLLGFTPSSG}$ 

# FIGURE 1562

 ${\tt AGCGCCGCGTGGTTAGCGTCGGCGGCTTTTGGC} \underline{{\tt ATC}} {\tt GCGACTTTTCTGGCCCGGCTGGGCCAATCCTGTCGCTT}$ AATCCGCAGGAAGATGTCGAGTTTCAAAAGGAGGTGGCGCAGGTTCGCAAGCGCATAACCCAGCGAAAAAAACAA TTCTCCCAGTTTGGCACTGTGACACGGTTCAGGCTGTCCAGAAGTAAAAGGACTGGAAATAGCAAAGGCTATGCA TTTGTGGAGTTTGAGTCTGAGGATGTTGCCAAAATAGTTGCTGAAACAATGAACAACTACCTGTTTGGTGAAAGA CTCTTGGAGTGTCATTTTATGCCACCTGAAAAAGTACATAAAGAACTCTTTAAAGACTGGAATATTCCATTTAAG CAGCCATCATATCCATCAGTGAAACGGTATAATCGGAATCGGACACTAACACAAAAGCTACGGATGGAGGAGCGA TTTAAAAAGAAAGAAAGATTACTCAGGAAGAAATTAGCTAAAAAAAGGAATTGACTATGATTTTCCTTCTTTGATT TTACAGAAAACGGAAAGTATTTCAAAAACTAATCGTCAGACGTCTACAAAAGGCCAGGTTTTACGTAAGAAGAAG AAAAAAGTTTCAGGTACTCTTGACACTCCTGAGAAGACTGTGGATAGCCAGGGCCCCACACCAGTTTGTACACCA ACATTTTTGGAGAGGCGAAAATCTCAAGTGGCTGAACTGAATGATGATGATAAAGATGATGAAATAGTTTTCAAA  ${\tt AGCAGCAATCAG} \underline{{\tt TGA}} {\tt TTTTCAATGTATTATTTTTTTGAAAAATATATTTTTTATGAGAGTGGACTTTGTA$ TTTCACTAGGTACAATGGAATACAACCTTTGACAAGATTTTCAGAGGAAAAATACACTGTTTGGTCAAGTTAAGG AAAGCAGTGTGAATTTTGGATTGCCTGCCCTTGGCTGAAATACAGGGGTGCATACCATCTTGCAGTGGCTTGGC TGACATTGCCTCTCTGTCCTGGCCTCTAGTTTTCTTTTGATATTTCATAGCTCTCCTTAGTTTACTCTGCCTGGA TAGAAAGTTGACCACTAACTGCAGGTTTAAGTACTAAACTGCAGCCTTTTCTGTCGCCAGCAATTAAAGACCACC AATCTTGTTTGTCCATCTACATGGTTTGTCGGGGACATTTAACTCATGGAGGTGCTTTAGATTTCAACATCAGAT GGTTGAAGCTGGAAGTTTAATTATATGTAGAGTGAGAAGGCAGTTCCAGTTTTAGCACAGATTTGTTTATGTGTT CAGATTTTAATAGAGATTCAAAAATGACTCATTTTTACCAATAATGTTAAATTAGTTTTGGTTGTGCTAGCATGA ATTAATAACCACCATTTTATACCAGTATCATCAGTGAAGAATTGTATTTCAAGATTCAAACAATAACCAGCAATT 

### 1715/2682 FIGURE 1563

MATFSGPAGPILSLNPQEDVEFQKEVAQVRKRITQRKKQEQLTPGVVYVRHLPNLLDETQIFSYFSQFGTVTRFR LSRSKRTGNSKGYAFVEFESEDVAKIVAETMNNYLFGERLLECHFMPPEKVHKELFKDWNIPFKQPSYPSVKRYN RNRTLTQKLRMEERFKKKERLLRKKLAKKGIDYDFPSLILQKTESISKTNRQTSTKGQVLRKKKKKVSGTLDTPE KTVDSQGPTPVCTPTFLERRKSQVAELNDDDKDDEIVFKQPISCVKEEIQETQTPTHSRKKRRRSSNQ

#### 1716/2682 FIGURE 1564

CAATCCTGTCGCTTAATCCGCAGGAAGATGTCGAGTTTCAAAAGGAGGTGGCGCAGGTTCGCAAGCGCATAACCC  ${\tt AGATCTTTCATATTTCTCCCAGTTTGGCACTGTGACACGGTTCAGGCTGTCCAGAAGTAAAAGGACTGGAAATA}$ GCAAAGGCTATGCATTTGTGGAGTTTGAGTCTGAGGATGTTGCCAAAATAGTTGCTGAAACAATGAACAACTACC TGTTTGGTGAAAGACTCTTGGAGTGTCATTTTATGCCACCTGAAAAAGTACATAAAGAACTCTTTAAAGACTGGA ATATTCCATTTAAGCAGCCATCATATCAATCAGTGAAACGGTATAATCGGAATCGGACACTAACACAAAAGCTAC GGATGGAGGAGCGATTTAAAAAGAAAGAAAGATTACTCAGGAAGAAATTAGCTAAAAAAAGGAATTGACTATGATT TTCCTTCTTTGATTTTACAGAAAACGGAAAGTATTTCAAAAACTAATCGTCAGACGTCTACAAAAGGCCAGGTTT TACGTAAGAAGAAGAAAAAGTTTCAGGTACTCTTGACACTCCTGAGAAGACTGTGGATAGCCAGGGCCCCACAC CAGTTTGTACACCAACATTTTTGGAGAGGCGAAAATCTCAAGTGGCTGAACTGAATGATGATGATAAAGATGATG AAATAGTTTTCAAACAGCCCATATCCTGTGTAAAAGAAGAAATACAAGAGACTCAAACACCTACACATTCACGGA GAGTGGACTTTGTATTTCACTAGGTACAATGGAATACAACCTTTGACAAGATTTTCAGAGGAAAAATACACTGTT TGCAGTGGCTTGGCTGACATTGCCTCTTTGTCCTGGCCTCTAGTTTTCTTTTGATATTTCATAGCTCTCCTTAGT TTACTCTGCCTGGATAGAAAGTTGACCACTAACTGCAGGTTTAAGTACTAAACTGCAGCCTTTTCTGTCGCCAGC AATTAAAGACCACCAATCTTGTTTGTCCATCTACATGGTTTGTCGGGGACATTTAACTCATGGAGGTGCTTTAGA TTTCAACATCAGATGGTTGAAGCTGGAAGTTTAATTATATGTAGAGTGAGAAGGCAGTTCCAGTTTTAGCACAGA TTTGTTTATGTGTTCAGATTTTAATAGAGATTCAAAAATGACTCATTTTTACCAATAATGTTAAATTAGTTTTGG TTGTGCTAGCATGAATTAATAACCACCATTTTATACCAGTATCATCAGTGAAGAATTGTATTTCAAGATTCAAAC 

# 1717/2682 FIGURE 1565

MATFSGPAGPILSLNPQEDVEFQKEVAQVRKRITQRKKQEQLTPGVVYVRHLPNLLDETQIFSYFSQFGTVTRFR LSRSKRTGNSKGYAFVEFESEDVAKIVAETMNNYLFGERLLECHFMPPEKVHKELFKDWNIPFKQPSYQSVKRYN RNRTLTQKLRMEERFKKKERLLRKKLAKKGIDYDFPSLILQKTESISKTNRQTSTKGQVLRKKKKKVSGTLDTPE KTVDSQGPTPVCTPTFLERRKSQVAELNDDDKDDEIVFKQPISCVKEEIQETQTPTHSRKKRRRSSNQ

#### 1718/2682 FIGURE 1566

1719/2682 FIGURE 1567

LXLGDPXEXLXRXMHXVRKLGIRLEKKKSASV

#### 1720/2682 FIGURE 1568

GCTCGGACGGCCGGTGTCCCCGGCGCCCCCCGGATCGGCCGCGCCTTCGGCGCCTCGGGGCTCGGGGCTC CGGGGAGGCCGTCGCCGCGATGCTGCTCCCAAGTTCGGCTCCCTGGCGCACCTCTGCGGGCCCGGCGGCGTGG ACCACCTCCCGGTGAAGATCCTGCAGCCAAGGCGACAAGGAGAGCTTCGAGAAGGCGTACCAGGTGGGCG TGCGCAAGGTGGGCGCGGGGGGGGGGGGGGGGGGGCGTCATCCGCCTGCTGGACTGGTTCGAGCGGCCCGACGGCT AGCCGCTGGCGCCGCCTTCTTCGCGCAGGTGCTGGCCGCCGTGCGCCACTGCCACAGCTGCGGGGTCGTGCACC GCGACATTAAGGACGAAAATCTGCTTGTGGACCTGCGCTCCGGAGAGCTCAAGCTCATCGACTTCGGTTCGGGTG ACCGCTACCACGGGCGCTCGGCCACCGTGTGGTCGCTGGGCGTGCTTCTCTACGATATGGTGTGTGGGGACATCC CCTTCGAGCAGGACGAGGAGTCCTCCGAGGCCGCCTGCTCTTCCGGAGGAGGGTCTCTCCAGAGTGCCAGCAGC TGATCCGGTGGTGCCTGTCCCTGCGGCCCTCAGAGCGGCCGTCGCTGGATCAGATTGCGGCCCATCCCTGGATGC TGGGGGCTGACGGGGGCCCCCGGAGAGCTGTGACCTGCGGCTGTGCACCCTCGACCCTGATGACGTGGCCAGCA TGGGACGCCCCAGACCCTGACTTTTTCCTGCGTGGGCCGTCTCCTCCTGCGGAAGCAGTGACCTCTGACCCCTG ACGCTCCGGTCGAGGTCCCGCCTGCCCTGGGTGGATACTTGAACCCCAGACGCCCCTCTGTGCTGCTGTCCGG AGGCGGCCTTCCCATCTGCCTGCCCACCCGGAGCTCTTTCCGCCGGCGCAGGGTCCCAAGCCCACCTCCCGCCCT  $\tt CGAGCCGTACCCGCCGCCAACTCTGTTATTTATGGTGTGACCCCCTGGAGGTGCCCTCGGCCCACCGGGGCTATT$ TATTGTTTAATTTATTTGTTGAGGTTATTTCCTCTGAGCAGTCTGCCTCTCCCAAGCCCCAGGGGACAGTGGGGA  ${\tt GGCAGGGGGGGGGGGGGGGCCCAGGGCCCTGATTCCTGTGCCTGGCGTCTGTCCTGGCCCCGC}$ AGGGTTTGGGGTTTTAAATTATTGACTTTGTACAGTCTGCTTGTGGGCTCTGAAAGCTGGGGTGGGGCCAGAGCCT GAGCGTTTAATTTATTCAGTACCTGTGTTTGTGTGAATGCGGTGTGTGCAGGCATCGCAGATGGGGGGTTCTTTCA GTTCAAAAGTGAGATGTCTGGAGATCATATTTTTTTATACAGGTATTTCAATTAAAATGTTTTTTGTACATAGAAA <u> АААААААААААААААААА</u>GGGCGG

#### 1721/2682 FIGURE 1569

RSACCASTRSPRAFRAHCAARTASGSDGRCPRRAARPDRPRLRRLGLGAPGRPSPAMLLSKFGSLAHLCGPGGVD HLPVKILQPAKADKESFEKAYQVGAVLGSGGFGTVYAGSRIADGLPVAVKHVVKERVTEWGSLGGATVPLEVVLL RKVGAAGGARGVIRLLDWFERPDGFLLVLERPEPAQDLFDFITERGALDEPLARRFFAQVLAAVRHCHSCGVVHR DIKDENLLVDLRSGELKLIDFGSGALLKDTVYTDFDGTRVYSPPEWIRYHRYHGRSATVWSLGVLLYDMVCGDIP FEQDEEILRGRLLFRRRVSPECQQLIRWCLSLRPSERPSLDQIAAHPWMLGADGGAPESCDLRLCTLDPDDVAST TSSSESL

#### 1722/2682 FIGURE 1570A

GACCGCGGCTGCAGGAACGGAGGCGGAAGGGGCCCTGCGGCGACGACGTCGTCGACGGGGGTGGCCGTGGGAGCT GGGCGCTACCAGGTGCTTCTTAATGAAGAGGATAACTCAGAATCATCGGCTATAGAGCAGCCACCTACTTCAAAC CCAGCACCGCAGATTGTGCAGGCTGTGTCTTCAGCACCAGCACTTGAAACTGACTCTTCCCCTCCACCATATAGT AGTATTACTGTGGAAGTACCTACAACTTCAGATACAGAAGTTTACGGTGAGTTTTATCCCGTGCCACCTCCCTAT AGCGTTGCTACCTCTCCTACATACGATGAAGCTGAGAAGGCTAAAGCTGCTGCAATGGCAGCTGCAGCAGCA GAAACATCTCAAAGAATTCAGGAGGAAGAGTGTCCACCAAGAGATGACTTCAGTGATGCAGACCAGCTCAGAGTG TGTATCACCAATACCATAGCTGGAAGGTATGGTGCTATCTGCGGATTTGGCCTTTCCTTGATCAAATGGATCCTT ATTGTCAGGTTTTCTGATTATTTTACTGGATATTTCAATGGACAGTATTGGCTTTGGTGGATATTTCTTGTACTT GGCCTGCTCCTTTTCTTCAGAGGATTTGTTAATTATCTAAAAGTCAGAAACATGTCTGAAAGTATGGCAGCTGCT  ${\tt CATAGAACAAGGTATTTCTTCTTATTG} \underline{{\tt TAG}} {\tt AGACTGCATCAACCCGACATTCCTTTCTTATACCAATGTGAAATT}$ TCCAGATCATCTGTAAACCTACAACTTTAATAGAAGACTACTAATAACAGAAGACAAATTAGTGAAGAAAAGACG GAGTTTCGAAATTGAATGGCAGGGTGGTTTTTGCTTACAAGCCATTTCTGTTCATTCTTTAAGTATCTATATTTC ATTTGTTTTGCACATATGCATATGTGCCCATTTAAGATATTTGCATATACTTGATAGAAACCATAAAGTTGTAGC AGTTAAGTCCAGTCACATTTGGTTAATCAGTGTTTGATATAATTGAAAGAGTTGAGTGGATAAACAGTCTTCCAG CTTGTAAATGCCATTGACTTCTGACCTGACATTTAGTATAATAAAAATGAAATTCTTAACCATGTCAAATGATTT AGTTTCTGGCTCTTAGACTCATCTGGCAGTTCTACACATGAAACATCTTTTGTTATATAAGGTGTATTGAAACCT GCAGTGCTGATTATTAGAAAGGATTTGTCGGATTTTTGAACATGATATTTACATTATTATTTAGGAAAACTCTTC CTGTAAATAACCATGCATAACTTACTTTCTGCAATGTTTTCTTAGAAATTGTGTCCAGATAGCTTTCACTAATTT ACGTGAGTGTTAAAGATAGAATTTGTTTTAGGACAAATTTTAAGAAAATGTGGGAATACCAAATGTCCTTTATAA GAAAAATTAAATTTTGTTTTAAGGGACATACCAGTTTTAGGGATTTTCAGATGGGAAGCTGCATTTTTAGGATTGC AATTTTCTAAATAAGATAATTCTCATTTGTGTTTTGTCTTTTAAAAGGCCAATAAAATATCTTTCAGTATCATTGT AATAATTTTTTAGAGTTTAATTTGTAAAGCTTAGCAAATAAAATCTTGTACTATGAATAGCTTCTTGCTTTATGA CTTTAGGATTAACTTGTAAAAAACATATCCTGAACTGAGATATGCAAAATACTCATTTTCAAGTTATGGAAATGT GTTTGTGGCATATAGGACTGTGGGGTCTGTGTGTGTAGTGAGAGTGTGTAGCCACTATTATAACTGGAATTTAAT TTACATTCATAAACTACTATATTTCCCATCTTGCAAATCATTTTATGTCTCATCTGTTTTTCCTTTCGGTTATAT CTTTGGTTTTGAATACCAACATTTAAAATGATGGTATTTTATCTTTTAAACTTAAAAATTATTTAATACAGCTAT ATGGACCTTATAAAATTGATTTCTTATTTATTATTAGACATTACTACTAAAAGGTACATCTAACTATTCAGGGAC ATTTTTCCATTTCCAAAAAATTAAAATTTATTATGCTTTATAACCTCTTCTGTATTTTCTAATTTTTTCATTGTCT TAGAATTTTTATTGTTATATAAAATTTTTATTGTTGTATTAAAGTACCTGTGTTACACCCCTTGAAGTAAGACA AACATATTCAAACTCATGCTGGATCTCTTTCATATTAATTTCTTATAGACCTGTACTTTATTCTTTCAATAATTT TTAAATGAAATTAAGCTTTGCTACATGGTAATTAAATAATTACTAGGAAGCTTAGCTATCAAACATCGACTTACT AAAATTTCATTTTAGCTTTTATGGTATATGTGCTTGTTTTCTGAATATGGATACATGTTACTTTTGATCCAGCAT CAAAACTTCACTTTTTGTTTTGACTTTTCCCCCCAAATCTGTAAGGTTCAAGTATACATATTACTGAATCCTCTA TAATTGGCATAATTCAATGGTAGCCTTAAATCTCATCATGTAAGCAGGGGAATCAGAATGTTATTTTCAAGAACT TAATGTTCCCTTCAGATATATAAAATCCTGCATACTTCATTTCCTGTGAGCTTGAACAGCTGCTGTTGTGTTTTG GGGATGCTTGATCATCTTTGCACTCTGCCTTAAAGATTGAAAAATCAAAACTCTTGTTAGGGTATCTAAACATTT TTGAGTGTGAACTGGGGATTGGAAGTTAATACAAAAAATTTCAAATTATTTCTATTGTAAATGAATAAGCTAGT CATGGCTAGGATAATCCATTTTCATGTATTTATGCAATAAACTGAATTTTAAGGCAAAAACAACACTTTTCTATA TAGTGTATGCAGGACAGATTTTAGAAACTTAGATTAAAATACAAATCCCATTACATTTGGTTAAAATGAATCTCT GCTTAATGGAAAAAATACTAATCTTTAGCCTATTTTGAGTCTATAAGATATATTTCATTTTAGACATGCCTTCTA AGTTGTTCACAGATTTTTACCTGCTAAAACAATATTATTTCCAGTAAAACCTCTCCTAACAGGAAAAGTGGAGTT CAAAATATCCAATTGGAGAAAAATTCAGAGTTCCTTCATTAAATATAATTTTTTCATCTAGTATGTACTATTTC

# FIGURE 1570B

# 1724/2682 FIGURE 1571

DRGCRNGGGRGPAATTSSTGVAVGAEHGEDSLSRKPDPEPGRMDHHQPGTGRYQVLLNEEDNSESSAIEQPPTSN PAPQIVQAVSSAPALETDSSPPPYSSITVEVPTTSDTEVYGEFYPVPPPYSVATSLPTYDEAEKAKAAAMAAAA ETSQRIQEEECPPRDDFSDADQLRVGNDGIFMLAFFMAFIFNWLGFCLSFCITNTIAGRYGAICGFGLSLIKWIL IVRFSDYFTGYFNGQYWLWWIFLVLGLLLFFRGFVNYLKVRNMSESMAAAHRTRYFFLL

#### 1725/2682 FIGURE 1572A

 ${\tt GCCTTATAAGTGGTTTAGTGCTCAGTTGGCTCTAGTAACCAGAGGACACAGAAAGTATCTTTTGGAAAGTTTAGC}$ TTTCAAAGAATGGAGGTTGCTGCACTCAGAAAATAATTCAGATCATGTTTATGCATTATTAAGTTGTACTGAATT  $\tt CTTTGCAGCTTAATGTGATATTGACTATCTTGAACAAGAGAAAAAACTAGGAGATGTTTCTCCTGAAGAGCTTT$ TGGGGTTGGGAACTATTCTTTTTTAATTGCTGTACTACTTAACATTGTTCTAATTCAGTAGCTTGAGGAACAGGA ACATTGTTTTCTAGAGCAAGATAATAAAGGAGATGGGCCATACAAATGTTTTCTACTTTCGTTGTGACAACATTG ATTAGGTGTTGTCAGTACTATAAATGCTTGAGATATAATGAATCCACAGCATTCAAGGTCAGGTCTACTCAAAGT AAATTGAATTTAAAAACTCACTGCACTGATTCATCTGAGCTTTTGGTTAGTATTCATGGCTAGAGTGAACATAGC TTTAGTTTTTGCTGTGTAAAAGTGTTTTCATAAGTTCACTCAAGAAAAATGCAGCTGTTCTGAACTGGAATTTTT GCAGTGCTTATGAAGAAAAATTAAAGCACAAACATTCTGGCATTCAATCGTTGGCAGATTATCTTCTGATGACAC AGAATGAAAGGGCATCTCAGCCTCTCTGAACTTGTAAAAATCTGTCCCCAGTTCTTCCATCGGTGTAGTTGTTGC ATTTGAGTGAATACTCTCTTGATTTATGTATTTTATGTCCAGATTCGCCATTTCTGAAATCCAGATCCAACACAA GCAGTCTTGCCGTTAGGGCATTTTGAAGCAGATAGTAGAGTAAGAACTTAGTGACTACAGCTTATTCTTCTGTAA CATATGGTTTCAAACATCTTTGCCAAAAGCTAAGCAGTGGTGAAGTGAAAAGGGCATATTGCCCCAAGGTTACAC TGAAGCAGCTCATAGCAAGTTAAAATATTGTGACAGATTTGAAATCATGTTTGAAATTCATAGTAGGACCAGTAC AAGAATGTCCCTGCTAGTTTCTGTTTGATGTTTGGTTCTGGCGGCTCAGGCATTTTGGGAACTGTTGCACAGGGT GGAGTCAAAACCAACCTACATATAAAAAGAGAAAAAGAGAAACTTGTCCATTTAGCTTTCATAAGAAATCCCATGG CAAAGGGTAATAAAAAGGACCTAATCTTAAAAATACAATTTCTAAGCACTTGTAAGAACCCAGTGGGTTGGAGCC TCCCACTTTGTCCCTCCTTTGAAGTGGATGGGAACTCAAGGTGCAAAGAACCTGTTTTGGAAGAAAGCTTGGGGC  ${\tt CATTTCAGCCCCCTGTATTCTCATGATTTTCTCTCAGGAAGCACACACTGTGAATGGCAGACTTTTCATTTAGCC}$ ACTCTCCAGAATGTACTATCCATCTTGATGAGAAAACTCTTAAATAGTACCAAACATTTTGAACTTTAAATTATG TATTTAAAGTGAGTGTTTAAGAAACTGTAGCTGCTTCTTTTACAAGTGGTGCCTATTAAAGTCAGTAATGGCCAT TATTGTTCCATTGTGGAAATTAAATTATGTAAGCTTCCTAATATCATAAACATATTAAAATTCTTCTAAAATATT GCTTTTCTTTTAAGTGACAATTTGACTATTCTTATGATAAGCACATGAGAGTGTCTTACATTTTCCAAAAGCAGG CTTTAATTGCATAGTTGAGTCTAGGAAAAAATAATGTTAAAAGTGAATATGCCACCATAATTACTTAATTATGTT AGTATAGAAACTACAGAATATTTACCCTGGAAAGAAAATATTGGAATGTTATTATAAACTCTTAGATATTTATAT AATTCAAAAGAATGCATGTTTCACATTGTGACAGATAAAGATGTATGATTTCTAAGGCTTTAAAAATTATTCATA TTTTGAAGGATATATTCTTTATGAACAAATATATTGTAAAAATTTATACTAAGGTCATCTGGTAACTGTGGGATT AATATGGTCGAAAACAAATGTTATGGAGAAGCTGTCCCAAGCAAACTAAATTACCTGTACTTTTTTCCCATTTCA AAGGCATGTGTTTCCTATGCCACCAATACTTTTGAAAAATTGTGAACCTTACCCAAAACCATTTATCATGTCCAT TAAGTATATTTGGGTATATAATTAGGAAGATATTTACATGTTCCATCTCCACAGTGGAAAAACTTATTGAGGCTA CCAAAGTGTGCCAAGAAATGTAAGTCCTTAGAGTAATTAGAAATGCTGTTTTCCTCAAAAGCATGAGAAACTAGC ATTTTCATTTCTTATTTACTCCCTTTCTATATCAATGCAATTCACAACCCAATTTTAATACATCCCTATATCTCA AGCATTTCTATCTTGTACTTTTTCAGAAAATAAACCAAAAATAATCCTTGGTCTCTCTATCTTCTGACCTTGTAA GCAACAGAAATGTAAAAACAGAAGGGGTCCAATTTTTACACGTTTTTTCTCAAGTAGCCTTTCTGGGGATTTTT ATTTTCTTAATGAAGTGCCAATCAGCTTTTCAAAATGTTTTCTATTTCTCAGCATTTCCAGGAAGTGATAACGTT TAGCTAAATGAGTAGAAGTGGACTTCCTTCAACATATTGTTACCTTGTCTAGCCTTAGGAAGAAAACAAGAGCCA CCTGAAAATAAATACAGGCTCTTTTCGAGCATCTGCTGAAATACTGTTACAGCAATTTGAAGTTGATGTGGTAGG AAAGGAAGGTGACTTTCTTGCAAAAGTCTTTCTAAACATTCACACTGTCCTAAGAGATGAGCTTTCTTGTTTTA TTCCGGTATATTCCACAAGGTGGCACTTTTAGAGAAAAACAAATCTGATGAAGACTAAAGAGGTACTTCTAAAAG 

#### 1726/2682 FIGURE 1572B

TTTTTGAAGTACCCAGTTACCTTACTTTCTAGATTAAAACAGGCTTAGTTACTAAAAAAGGCAGTCCTCATCTGT GAACAGGATAGTTTCGTTAGAAGTATAAAACTCCTTTAGTGGCCCCAGTTAAAACACACATACCCTCTCTGCTGC TTTCAAATTCCCTAGCATGGTGGCCTTTCAACATTGATTAAATTTTAAAATCCTAATTTAAAGATCAGGTGAGCA AAATGAGTAGCACATCAGTAATTCAGTAGACAAAACTTTTGTCTGAAAAATTGCTGTATTGAAACAGAGCCCTAA AATACCAAAAGACCAGGTAATTTTAACATTTGTGGAATCACAAATGTAAATTCATAAGAAGCTCTAATTAAAAAA AAAAAGTCTGAAGTATATGAGCATAACAACTTAGGAGTGTGTCTACATACTTAACTTTTGAAGTTTTTTGGCAAC TTTATATACTTTTTTAAATTTACAAGTCTACTTAAAGACTTCTTATACCCCCAAATGATTAAGTTAATTTTAGAG GTCACCTTTCTCACAGCAGTGTCACTTGAAATTTAGTAGGGAAGGATATTGCAGTATTTTCAGTTTCCTTAGCA GGCAAGCAGATGAGTCTCAGTAATTCATACTGAACCAAAATGCCACATACACTAGGGGCAGTCAGAAACTGGCTG AGAAATCCCCCGCCTCATTCGCCCCTCTGCTCCCAGGAACTAGAGTCCAGTTAAAGCCCCTATGCGAAAGGCCGA  ${\tt ATTCCACCCCAGGGTTTGTTATAACAGTGGCCAGTCTGAACCCCATTTGCTCGTGCTCAAAACTTGATTCCCACT}$ GGGCCCCGCCTCCCACTCACCTGCCGGTGCCTGAAATTATGTGCGGCCCCGCGGGCTGCTTTCCGAGGTCAGAGT GCCCTGCTGCTGTCTCAGAGGCATCTGTTCTGCAAATCTTAGGAAGAAAAATGTCCCTAGTAGCAAACGGGTGTC TTCTGTGCATAAATAAGTACAACACAATTCTCCGAAAGTTCGGGTAAAAAGAGATGCGGTAGCAGCTGCCCTGTG TGTATAATTGCAGGAATTTTTTTTTTTTTTTTTTTTCCATCATCTTTTTATATGTGATGGTGAAAGATATGCCT GGAAAAGTTTTGTTTTGAAAAGTTTATTTTCTGCTTCGTCTTCAGTTGGCAAAAGCTCTCAATTCTTTAGCTTCC TCATGTTGAGAGGAATCTTCCGTGTGAGTTGTTTGGTCACACAAATAACCCTTTCTCAATTTTAGGAGTTTGGAT TGTCAAATGTAGGTTTTTCTCAAAGGGGGCATATAACTACATATTGACTGCCAAGAACTATGACTGTAGCACTAA TCAGCACACATAGAGCCACACAATTATTTAATTTCTAACTCTCTGTGGTCCCTAGAAAAATTCCGTTGATGTGCT TAGGTTAAAGTTCTGAAGATACCCGTTGTACCCTTACTTGAAAGTTTCTAATCTTAAGTTTTATGAAATGCAATA ATATGTATCAGCTAGCAATATTTCTGTGATCACCAACAACTCTCAGTTTGATCTTAAAGTCTGAATAATAAAACA AATCCCAGCAGTAATACATTTCTTAAACCTCACAGTGCATGATATATCTTTTCATTCTGATCCTGTGTTTGCAAA AATATACACATGTATATCATAGTTCCTCACTTTTTATTCATTTGTTTTCCTATTACCTGTAGTAAATATATTAGT GTACAACTGAAGGCAGAAAGTGTTAGGATTTTGCATCTAATGTTCATTATCATGGTATTGATGGACCTAAGAAAA TAAAAATTAGACTAAGCCCCCAAATAAGCTGCATGCATTTGTAACATGATTAGTAGATTTGAATATATAGATGTA GTATTTTGGGTATCTAGGTGTTTTATCATTATGTAAAGGAATTAAAGTAAAGGACTTTGTAGTTGTTTTTATTAA ATATGCATATAGTAGAGTGCAAAAATATAGCAAAAATAAAAACTAAAGGTAGAAAAGCATTTTAGATATGCCTTA ATTTAGAAACTGTGCCAGGTGGCCCTCGGAATAGATGCCAGGCAGAGACCAGTGCCTGGGTGGTGCCTCCTCTTG TCTGCCCTCATGAAGAAGCTTCCCTCACGTGATGTAGTGCCCTCGTAGGTGTCATGTGGAAGTAGTGGGAACAGGC AGTACTGTTGAGAGGAGAGCAGTGTGAGAGTTTTTCTGTAGAAGCAGAACTGTCAGCTTGTGCCTTGAGGCTTCC AGAACGTGTCAGATGGAGAAGTCCAAGTTTCCATGCTTCAGGCAACTTAGCTGTACAGAAGCAATCCAGTGTG GAGCAGTATGTGTTAAGAAAAGAAAAATATTGGTTCGCGTAGAGTGCAAATTAGAACTAGAAAGTTTTATACGAT TATCATTTTGAGATGTGTTAAAGTAGGTTTTCACTGTAAAATGTATTAGTGTTTCTGCATTGCCATAGGGCCTGG TTAAAACTTTCTCTTAGGTTTCAGGAAGACTGTCACATACAGTAAGCTTTTTTCCTTCTGACTTATAATAGAAAA TGTTTTGAAAGTAAAAAAAAAAAAATCTAATTTGGAAATTTGACTTGTTAGTTTCTGTGTTTGAAATCATGGTTC TAGAAATGTAGAAATTGTGTATATCAGATACTCATCTAGGCTGTGTGAACCAGCCCAAGATGACCAACATCCCCA CACCTCTACATCTCTGTCCCCTGTATCTCTTCCTTTCTACCACTAAAGTGTTCCCTGCTACCATCCTGGCTTGTC CACATGGTGCTCTCCATCTTCCTCCACATCATGGACCACAGGTGTGCCTGTCTAGGCCTGGCCACCACTCCCAAC TTGACCTAGCCACATTCATCTAGAGATGGTTCCTGATGCTGGGCACAGACTGTGCTCATGGCACCCATTAGAAAT

### 1727/2682 FIGURE 1572C

GCCTCTAGCATCTTTGTATGCATCTTGATTTTTAAACCAAGTCATTGTACAGAGCATTCAGTTTTGGCTGTGGTA CCAAGAGAAAACTAATCAAGAATATAAACCACATTCCAGGCTGCTGTTTTCTCTCCATCTACAGGCCACACTTT TACTGTATTCTTCATACTTGAAATTCATTCTGCTATTTTCATATCAGGGTACAGACTTATAAGGGTGCATGTTC CTTAAAGGTGCATAATTATTCTTATTCCGTTTGCTTATATTGCTACAGAATGCTCTGTTTTGGTGCTTTGAGTTC TGCAGACCCAAGAAGCAGTGTGGAAATTCACTGCCTGGGACACAGTCTTATAAGAATGTTGGCAGGTGACTTTGT ATCAGATGTTGCTTCTCTTTTCTCTGTACACAGATTGAGAGTTACCACAGTGGCCTGTCGGGTCCACCCTGTGGG TGCAGCACAGCTCTCTGAAAGCAAGAACCTTCCTACCTATTCTAACGTTTTTGCCCTCTAAGAAAAATGGCCTCA GGTATGGTATAGACATAGCAAGAGGGGGAAGGGCTGTCTCACTCTAGCAACCATCCCTCCATTACACACAGAAAGC CCTCTTGAAGCAAAAGAAGAAGAAAGAAAGCTTATCTCTAAGGCTACTGTCTTCAGAATGCTCTGAGCTGA ATGCTCTTGCTCCTTTCCCAAGAGGCAGATGAAAATATAGCCAGTTTATCTATACCCTTCCTATCTGAGGAGGAG AATAGAAAAGTAGGGTAAATATGTAACGTAAAATATGTCATTCAAGGACCACCAAAACTTTAAGTACCCTATCAT TAAAAATCTGGTTTTAAAAGTAGCTCAAGTAAGGGATGCTTTGTGACCCAGGGTTTCTGAAGTCAGATAGCCATT  $\tt CTTACCTGCCCCTTACTCTGACTTATTGGGAAAGGGAGAACTGCAGTGGTGTTTCTGTTGCAGTGGCAAAGGTAA$ CATGTCAGAAAATTCAGAGGGTTGCATACCAATAATCCTTTGGAAACTGGATGTCTTACTGGGTGCTAGAATGAA AATGTAGGTATTTATTGTCAGATGATGAAGTTCATTGTTTTTTTCAAAATTGGTGTTGAAATATCACTGTCCAAT GTGTTCACTTATGTGAAAGCTAAATTGAATGAGGCAAAAAGAGCAAATAGTTTGTATATTTGTAATACCTTTTGT ATTTCTTACAATAAAAATATTGGTAGCAAATAAAAAATAATAAAAACAATAACTTTAAACTGCTTTCTGGAGATGA TCCAAGTTTTAGCAGAAAAA

1728/2682 FIGURE 1573

PYKWFŚAQLALVTRGHRKYLLESLATCAF

# 1729/2682 FIGURE 1574

GCTCGCCGGTCCTCGGCACGCCGCTCGCCCCTGCGCTGCCCCTTCCCCTAGCGTTACTTCCGGTCCCT  $\tt CGCTGAGGGGGTTCGTGCGGCTCCCAGGAGGCGTGAACCGCGGACC\underline{ATG}AGCGTGGGCTTCATCGGGGCCGGCCA$ GCTGGCCTATGCTCTGGCGCGGGGCTTCACGGCCGCAGGCATCCTGTCGGCTCACAAGATAATAGCCAGCTCCCC  ${\tt AGAAATGAACCTGCCCACGGTGTCCGCGCTCAGGAAGATGGGTGTGAACCTGACACGCAGCAACAAGGAGACGGT}$ GAAGCACAGCGACGTCCTGTTTCTGGCTGTGAAGCCACATATCATCCCCTTCATCCTGGATGAGATTGGGGCCGA  $\tt CGTGCAAGCCAGACACATCGTGGTCTCCTGTGCGGCTGGTGTCACCATCAGCTCTGTGGAGAAGAAGCTGATGGC$ ATTCCAGCCAGCCCCCAAAGTGATTCGCTGCATGACCAACACCCTGTGGTAGTGCAGGAAGGCGCTACAGTGTA  ${\tt GGACGCATTGGCTGATGGTGGGGTGAAGATGGGTTTGCCACGGCGCCTGGCAATCCAACTCGGGGCCCAGGCTTT}$ GCTGGGAGCTGCCAAGATGCTGCTGGACTCGGAGCAGCATCCATGCCAGCTTAAGGACAATGTCTGCTCCCCTGG GGGAGCCACCACCACCCCTGCACTTTCTAGAGAGTGGGGGCTTCCGCTCTCTGCTCATCAATGCAGTTGAGGC CTCCTGTATCCGAACACGAGGGCTACAGTCCATGGCCGACCAAGAAAAGATCTCCCCAGCTGCCCTTAAGAAGAC  ${\tt CCTCTTAGACAGAGTGAAGCTGGAATCCCCCACAGTCTCCACACTGACCCCCTCCAGGCAAGCTCCTCAC}$  ${\tt AAGAAGCCTGGCCCTGGGAGGCAAGAAGGAC} {\color{red}{\bf TAA}} {\tt GGCAGCATCTGTCCCCTCTGTGATTCAGAGCCCTTAGTTGA}$ TGCTTAGGAAGTTTTCAGGTCCTTGTGATAAAACCTCCTTAAATCTGTTCAGACCAAGCAATGCGAGCTTCCTCT CCTGTCCCATGTTGGAAGTTGCTCTGAAGGGGTGGTAGATGCTGGAAGCCAGACACAACCCTGCGTACGCTGCTC CCCGAGGCAGGGTTGGTGATGCCAAGGCAAAGTGGTGAGGAGAAAACAGGAAACGGGCTTTCTCTGAATTGGT AAATGGGAAAGAAGTGAGCAACTTAAGATTGTCACAATTAATCACAAGTGTACAGGATTAGACTGGGTTTATATT TAACTCTTGCTTCATAGGTGTACCATTTAAAGAGTGTTATTTAATGCTAAGTTTAACTGCTTTAATAAAGTTTAT TTTTAAATATCAAAAAAAAAAAAAAAAA

# 1730/2682 FIGURE 1575

MSVGFIGAGQLAYALARGFTAAGILSAHKIIASSPEMNLPTVSALRKMGVNLTRSNKETVKHSDVLFLAVKPHII PFILDEIGADVQARHIVVSCAAGVTISSVEKKLMAFQPAPKVIRCMTNTPVVVQEGATVYATGTHALVEDGQLLE QLMSSVGFCTEVEEDLIDAVTGLSGSGPAYAFMALDALADGGVKMGLPRRLAIQLGAQALLGAAKMLLDSEQHPC QLKDNVCSPGGATIHALHFLESGGFRSLLINAVEASCIRTRELQSMADQEKISPAALKKTLLDRVKLESPTVSTL TPSSPGKLLTRSLALGGKKD

# FIGURE 1576

### 1732/2682 FIGURE 1577

GGGGCGGAGAGAGGCGAGCACCGGGAAGGGGAGCGTGGGGCCGCTGGAATTTAAGGTCCATCGAGTA CGTTTCTTTAATTATGTTCCATCAGGAATCCGCTGTGTGGCTTACAATAACCAGTCAAACAGATTGGCTGTTTCA CGAACAGATGGCACTGTGGAAATTTATAACTTGTCAGCAAACTACTTTCAGGAGAAATTTTTCCCAGGTCATGAG TCTCGGGCTACAGAAGCTTTGTGCTGGGCAGAAGGACAGCGACTCTTTAGTGCTGGGCTCAATGGCGAGATTATG GAGTATGATTTACAGGCGTTAAACATCAAGTATGCTATGGATGCCTTTGGAGGACCTATTTGGAGCATGGCTGCC  ${\tt AGCCCCAGTGGCTCTCAACTTTTGGTTGGTTGTGAAGATGGATCTGTGAAACTATTTCAAATTACCCCAGACAAA}$ ATCCAGTTTGAAAGAAATTTTGATCGGCAGAAAAGTCGCATCCTGAGTCTCAGCTGGCATCCCTCTGGTACCCAC ATTGCAGCTGGTTCCATAGACTACATTAGTGTGTTTGATGTCAAATCAGGCAGCGCTGTTCATAAGATGATTGTG GACAGGCAGTATATGGGCGTGTCTAAGCGGAAGTGCATCGTGTGGGGTGTCGCCTTCTTGTCCGATGGCACTATC ATAAGTGTGGACTCTGCTGGGAAGGTGCAGTTCTGGGACTCAGCCACTGGGACGCTTGTGAAGAGCCATCTCATC GCTAATGCTGACGTGCAGTCCATTGCTGTAGCTGACCAAGAAGACAGTTTCGTGGTGGGCACAGCCGAGGGAACA GTCTTCCATTTTCAGCTGGTCCCTGTGACATCTAACAGCAGTGAGAAGCAGTGGGTGCGGACAAAACCGTTCCAG CATCACACTCATGACATGCGCACTGTGGCCCACAGCCCAACAGCGCTGATATCTGGAGGCACTGACACCCACTTA GTCTTTCGTCCTCTCATGGAGAAGGTGGAAGTAAAGAATTACGATGCCGCTCTCCGAAAAATCACCTTTCCCCAC  $\tt CGATGTCTCATCTCCTGTTCTAAAAAGAGGCAGCTTCTCCTCTTCCAGTTTGCTCATCACTTAGAACTTTGGCGA$ CTAAAGACAAAGGGTCCTGAGAACATTATCTGTAGCTGTATCTCCCCATGTGGAAGTTGGATAGCCTATTCTACA GTTTCTCGGTTTTTTCTCTATCGGCTGAATTATGAACATGACAACATAAGCCTCAAAAGGGTTTCCAAAATGCCA GCATTCCTTCGCTCTGCCCTTCAGATTTTGTTTTCTGAAGATTCAACAAAGCTCTTTGTAGCATCAAAATCAAGGA GAGGCCATGTGTCTTTTGGCAGTCAGTCCAGATGGGAATTGGCTAGCTGCATCAGGTACCAGTGCTGGAGTCCAT GTCTACAACGTAAAACAGCTAAAGCTTCACTGCACGGTGCCTGCTTACAATTTCCCAGTGACTGCTATGGCTATT GCCCCCAATACCAACAACCTTGTCATCGCTCATTCGGACCAGCAGGTATTTGAGTACAGCATCCCAGACAAACAG TATACAGATTGGAGCCGGACTGTCCAGAAGCAGGGCTTTCACCACCTTTGGCTCCAAAGGGATACTCCTATCACA  ${\tt CACATCAGTTTTCATCCCAAGAGACCGATGCACATCCTTCTCCATGATGCCTACATGTTCTGCATCATTGACAAG}$  ${\tt AGGCGCACAGCTCATGCTTTTAAAATTTCTAAGATATATAAGCCTCTACTCTTCATGGATCTTTTTGGATGAAAGA}$ ACACTCGTGGCAGTAGAACGGCCTCTGGATGACATCATTGCTCAGCTCCCACCACCACTTAAAAAGAAGAAATTT  ${\tt GGAACC}{\color{red}{\bf TAA}}{\tt AACAGGGCACTGTCTGTGTCCTTCCTTGAACTGTCTACCCTGTTGCTTTTCACAAATCATGGTAAT$ AAAACAAGTTATTCTTG

### 1733/2682 FIGURE 1578

MGEFKVHRVRFFNYVPSGIRCVAYNNQSNRLAVSRTDGTVEIYNLSANYFQEKFFPGHESRATEALCWAEGQRLF
SAGLNGEIMEYDLQALNIKYAMDAFGGPIWSMAASPSGSQLLVGCEDGSVKLFQITPDKIQFERNFDRQKSRILS
LSWHPSGTHIAAGSIDYISVFDVKSGSAVHKMIVDRQYMGVSKRKCIVWGVAFLSDGTIISVDSAGKVQFWDSAT
GTLVKSHLIANADVQSIAVADQEDSFVVGTAEGTVFHFQLVPVTSNSSEKQWVRTKPFQHHTHDMRTVAHSPTAL
ISGGTDTHLVFRPLMEKVEVKNYDAALRKITFPHRCLISCSKKRQLLLFQFAHHLELWRLGSTVATGKNGDTLPL
SKNADHLLHLKTKGPENIICSCISPCGSWIAYSTVSRFFLYRLNYEHDNISLKRVSKMPAFLRSALQILFSEDST
KLFVASNQGALHIVQLSGGSFKHLHAFQPQSGTVEAMCLLAVSPDGNWLAASGTSAGVHVYNVKQLKLHCTVPAY
NFPVTAMAIAPNTNNLVIAHSDQQVFEYSIPDKQYTDWSRTVQKQGFHHLWLQRDTPITHISFHPKRPMHILLHD
AYMFCIIDKSLPLPNDKTLLYNPFPPTNESDVIRRRTAHAFKISKIYKPLLFMDLLDERTLVAVERPLDDIIAQL
PPPIKKKKFGT

# 1734/2682 FIGURE 1579

TCCCAGCTATGCCAAAAAAGTTGCGCTCTGGCTTGCTGGGCTGCTTGGAGCTGGTGGGACTGTGAGCGTCGTCTA TATCTTTGGAAACAACCCGGTGGACGAAAATGGTGCCAAGATTCCTGATGAGTTCGACAATGATCCAATTCTGGT ACAGCAGTTGCGCCGGACATACAAATATTTCAAAGATTATAGACAGATGATCATCGAGCCCACCAGCCCTTGCCT TCTCCCAGACCCTCTGCAGGAACCGTACTACCAGCCACCCTACACGCTCGTTTTGGAGCTCACCGGCGTCCTCTT GCATCCTGAGTGGTCGCTGGCCACTGGCTGGAGGTTTAAGAAGCGCCCAGGCATCGAGACCTTGTTCCAGCAGCT TGCCCCTTTATATGAAATTGTCATCTTTACGTCAGAGACTGGCATGACTGCGTTTCCACTCATTGATAGTGTGGA GACCATTGCACTGAATGGTGTGGAGGACGTGCGAACCGTGCTGGAGCACTATGCCCTGGAGGATGACCCGCTGGC GGCTTTCAAACAGCGGCAAAGCCGGCTAGAGCAGGAGGAGGAGCAGCCGCCTGGCCGAGCTCTCCAAGTCCAACAA GCAGAACCTCTTCCTTGGCTCCCTCACCAGCCGCTTGTGGCCTCCCAAACAGCCCTGAACTCTGGGCCTCCT ATCCCAGACGCCACAAAAAAAAAAAAAAAA

#### 1735/2682 FIGURE 1580

CAGGGGTCACGGGGCCCAGAAGGCAGCCTTGGTTCTGCTGAGTGCCTGGTGACCCTTTGGGGGGCTAGGAGA GCCACCAGAGCACACTCTCCGGTACCTGGTCCTCCACCTAGCCTCCCTGCAGCTGGGACTGCTGTTAAACGGGGT CTGCAGCCTGGCTGAGGAGCTGCGCCACATCCACTCCAGGTACCGGGGCAGCTACTGGAGGACTGTGCGGGCCTG CGGCCCGCCCTTCACTTGGATGCTTGCCCTCCTGGGCCTCTCGCAGGCACTGAACATCCTCCTGGGCCTCAAGGG CCTGGCCCCAGCTGAGATCTCTGCAGTGTGTGAAAAAGGGAATTTCAACGTGGCCCATGGGCTGGCATGGTCATA TTACATCGGATATCTGCGGCTGATCCTGCCAGAGCTCCAGGCCCGGATTCGAACTTACAATCAGCATTACAACAA CCTGCTACGGGGTGCAGTGAGCCAGCGGCTGTATATTCTCCTCCCATTGGACTGTGGGGTGCCTGATAACCTGAG TATGGCTGACCCCAACATTCGCTTCCTGGATAAACTGCCCCAGCAGACCGGTGACCGTGCTGGCATCAAGGATCG  $\verb|CCCCTTGCAGACTTTGTTTGCCATGTCACAATACAGTCAAGCTGGCTTTAGCCGGGAGGATAGGCTTGAGCAGGC|\\$ CAAACTCTTCTGCCGGACACTTGAGGACATCCTGGCAGATGCCCCTGAGTCTCAGAACAACTGCCGCCTCATTGC CTACCAGGAACCTGCAGATGACAGCAGCTTCTCGCTGTCCCAGGAGGTTCTCCGGCACCTGCGGCAGGAGAAAA GGAAGAGGTTACCGTGGGCAGCTTGAAGACCTCAGCGGTGCCCAGTACCTCCACGATGTCCCAAGAGCCTGAGCT  $\tt CCTCCTCAGTGGAATGGGAAAGCCCCTCCCTCTCCGCACGGATTTCTCT{\color{red}{\textbf{TGA}}}{GACCCAGGGTCACCAGGCCAGAG}$ ACAGGGGGCCTTGCAGGGAAGGGTCCAGGACTTGACATCTTAAGATGCGTCTTGTCCCCTTGGGCCAGTCATTTC 

# 1736/2682 FIGURE 1581

MPHSSLHPSIPCPRGHGAQKAALVLLSACLVTLWGLGEPPEHTLRYLVLHLASLQLGLLLNGVCSLAEELRHIHS RYRGSYWRTVRACLGCPLRRGALLLLSIYFYYSLPNAVGPPFTWMLALLGLSQALNILLGLKGLAPAEISAVCEK GNFNVAHGLAWSYYIGYLRLILPELQARIRTYNQHYNNLLRGAVSQRLYILLPLDCGVPDNLSMADPNIRFLDKL PQQTGDRAGIKDRVYSNSIYELLENGQRAGTCVLEYATPLQTLFAMSQYSQAGFSREDRLEQAKLFCRTLEDILA DAPESQNNCRLIAYQEPADDSSFSLSQEVLRHLRQEEKEEVTVGSLKTSAVPSTSTMSQEPELLLSGMGKPLPLR TDFS

#### 1737/2682 FIGURE 1582A

AACCATAGAACATGGGAATAGGTTTTATTTTCATCTCAAGAACATTTAAGTTGGGTGAAGAAATTCAGCTTTTGT TGTTAGAATCTGACAGGCTTCAAACACTTGTGATGGAGGGGTTGTTGTCATATCAAAGTCCACCTAGTAAAGTTT TAGGTGACCAGTGACTTTGTCAATTAGGTCTGCTGGTCCTGGCCCAATCCCTAGGACAGTTTGAGAGCCTGGTGC CAGGGTTTCTTCATCAGGAGCTTTGACCACCACCTTGGGCTGGCCACAGTATTCCCATTGTTTGAGCATTTCAGG ATTTCTTCTTTGAATCTGCTTGTAGGCTGAAACAGCAGCATGAGAGCACTGGGCAGCCACTTTCCCCTTTTCCCAT ATCTGTGTGTGTCTTGCTCTTTGCTTTTTGGGGAGCATCCCAAAGCATACTCGAAGGCTCCAGCCCCAGGCACA TGCCACAAGCAACTCCAACAGCCAAGCCGAGTGTACTGGGATGAGCCAAATATTCCATAACCAAGGATTTGGAGG GCATCTACAGTACCTCCTTTCCTCACTCGCGCCTTCCCTTCTTCTGGGCAGCGAACACGTTTCTATCGCGTGAGC TACCTCTTCCGGGGTTCCTGGGTGACAAGTTCCGGATCAAGAATCACAAAGCGAGCAGTCATTCTTCCTCTTGCC ACACCCACAGGGCCCGCACTAAGAGCCTAACTGAAATCCCGCGAGGATCAACCGAGCTCGCCGAAAGGAGGAGG AACGTATCCCTTCTGGAGGCTGTCTCAGGGGGCAGAGGGACCGGACCGGAAGTGACGTGAGCGGGTTCCGGTTGT  $\tt CTGGAGCCCAGCGGGGTGTGAGAGTCCGTAAGGAGCAGCTTCCAGGATCCTGAGATCCGGAGCAGCCGGGGGT$ CGGAGCGGCTCCTCAAGAGTTACTGATCTATGAAATGGCAGAGAATGGAAAAAATTGTGACCAGAGACGTGTAGC AGAAAGGCAGAATATTGTCCTGTGGAGACAGCCGCTCATTACCTTGCAGTATTTTTCTCTGGAAATCCTTGTAAT TATAGCTACGTATTATGTTGAAGGAGTGCATCAACAGTATGTGCAACGTATAGAGAAACAGTTTCTTTTGTATGC CTACTGGATAGGCTTAGGAATTTTGTCTTCTGTTGGGCTTGGAACAGGGCTGCACACCTTTCTGCTTTATCTGGG TCCACATATAGCCTCAGTTACATTAGCTGCTTATGAATGCAATTCAGTTAATTTTCCCGAACCACCCTATCCTGA TCAGATTATTTGTCCAGATGAAGAGGGCACTGAAGGAACCATTTCTTTGTGGAGTATCATCTCAAAAGTTAGGAT TGAAGCCTGCATGTGGGGTATCGGTACAGCAATCGGAGAGCTGCCTCCATATTTCATGGCCAGAGCAGCTCGCCT CTCAGGTGCTGAACCAGATGATGAAGAGTATCAGGAATTTGAAGAGATGCTGGAACATGCAGAGTCTGCACAAGA CTTTGCCTCCCGGGCCAAACTGGCAGTTCAAAAACTAGTACAGAAAGTTGGATTTTTTGGAATTTTTGGCCTGTGC TTCAATTCCAAATCCTTTATTTGATCTGGCTGGAATAACGTGTGGACACTTTCTGGTACCTTTTTGGACCTTCTT TGGTGCAACCCTAATTGGAAAAGCAATAATAAAAATGCATATCCAGAAAATTTTTGTTATAATAACATTCAGCAA GCACATAGTGGAGCAAATGGTGGCTTTCATTGGTGCTGTCCCCGGCATAGGTCCATCTCTGCAGAAGCCATTTCA GGAGTACCTGGAGGCTCAACGGCAGAAGCTTCACCACAAAAGCGAAATGGGCACACCACAGGGAGAAAACTGGTT AAGTTATGCCAAACGAATCCAGCAGCGGTTGAACTCAGAGGAGAAAACTAAA<u>TAA</u>GTAGAGAAAGTTTTAAACTG CTGTATCAATTTTTACAACTTTTTTCCTGAAAGCAGTTTAGTCCATACTTTGCACTGACATACTTTTTCCTTCTG TGCTAAGGTAAGGTATCCACCCTCGATGCAATCCACCTTGTGTTTTCTTAGGGTGGAATGTGATGTTCAGCAGCA AACTTGCAACAGACTGGCCTTCTGTTTGTTACTTTCAAAAGGCCCCACATGATACAATTAGAGAATTCCCACCGCA CAAAAAAGTTCCTAAGTATGTTAAATATGTCAAGCTTTTTAGGCTTGTCACAAATGATTGCTTTGTTTTCCTAA GTCATCAAAATGTATATAAATTATCTAGATTGGATAACAGTCTTGCATGTTTATCATGTTACAATTTAATATTCC ATCCTGCCCAACCCTTCCTCTCCCATCCTCAAAAAAAGGGCCATTTTATGATGCATTGCACACCCTCTGGGGAAAT CTGTGTATTTAGAATGAAGTCTTGAAAAAACTTTATAAAGACATCTTTAATCATTCCAAAATTGTGTCCGTTTT CTTGAGCGTTTTGATTTTTTACTTTTAGCTTATACCAGCTGAATGGCAGCCTTGCCTAATCCACCTACAACAAGA ATTTCTTAAGCTTTCTTTATTTGCATGAGAGAGCCACTACCAAGGCATGTTTTGTTATGCTGAAACTGGGCTGC TGTGTTAATGTTTCTAGCATGTACTCTGGTTTCAACAGACACAAATTTATATGTTAACCCAGTTTTCTTGCCGT CTTGGGAGGAAAATAAACAATTTTACTTTTTCCTTTAGGAGCATTATGAGCATTATGTCAGAATAGAATAGAAT 

# 1738/2682 FIGURE 1582B

CTGCCTGACTGTCTGCTTGTTTTGCCTACCATCGTGACATCTCCATGGCTGTACCACCTTGTCGGGTAGCTTATC AGACTGATGTTGACTGTTGAATCTCATGGCAACACCAGTCGATGGGCTGTCTGACATTTTGGTATCTTTCATCTG ACCATCCATATCCAATGTTCTCATTTAAACATTACCCAGCATCATTGTTTATAATCAGAAACTCTGGTCCTTCTG TCTGGTGGCACTTAGAGTCTTTTGTGCCATAATGCAGCAGTATGGAGGAGGATTTTATGGAGAAATGGGGATAG TCTTCATGACCACAAATAAATAAAGGAAAACTAAGCTGCATTGTGGGTTTTGAAAAGGTTATTATACTTCTTAAC AATTCTTTTTTCAGGGACTTTTCTAGCTGTATGACTGTTACTTGACCTTCTTTGAAAAGCATTCCCAAAATGCT CTATTTTAGATAGAŢTAACATTAACCAACATAATTTTTTTTAGATCGAGTCAGCATAAATTTCTAAGTCAGCCTC TAGTCGTGGTTCATCTCTTCACCTGCATTTTATTTGGTGTTTTGTCTGAAGAAAGGAAAGGAAAGCAAATACG AATTGTACTATTTGTACCAAATCTTTGGGATTCATTGGCAAATAATTTCAGTGTGGTGTATTATTAAATAGAAAA AAAAAATTTTGTTTCCTAGGTTGAAGGTCTAATTGATACGTTTGACTTATGATGACCATTTATGCACTTTCAAAT GAATTTGCTTTCAAAATAAATGAAGAGCAGCTGTCCTTCTTTCCTCTTTTAAGTGTTCAGCTGTGGCATGCTCAG CCACCAAAGTGGAGACAAATACATGATCTCAAAGATACACAGTACCTACTTAATTCCAGCTGATGGGAGACCAAA GAATTTGCAAGTGGATGGTTTGGTATCACTGTAAATAAAAAGAGGGCCTGGGAATTCTTGCGATTCCATCTCTAC TTTGTATAAGTCTCATTTTGTGCCTTACACATCTGCAGTATTTATCATGTTCCAACTTGGTGACTGTCAGGCAGT GCAATACATCAGCAGTTTATCACCGAAGAGCTGAGGAATACCTCCCTTAAAACAGACAATGTC

# 1739/2682 FIGURE 1583

MAENGKNCDQRRVAMNKEHHNGNFTDPSSVNEKKRREREERQNIVLWRQPLITLQYFSLEILVILKEWTSKLWHR QSIVVSFLLLLAVLIATYYVEGVHQQYVQRIEKQFLLYAYWIGLGILSSVGLGTGLHTFLLYLGPHIASVTLAAY ECNSVNFPEPPYPDQIICPDEEGTEGTISLWSIISKVRIEACMWGIGTAIGELPPYFMARAARLSGAEPDDEEYQ EFEEMLEHAESAQDFASRAKLAVQKLVQKVGFFGILACASIPNPLFDLAGITCGHFLVPFWTFFGATLIGKAIIK MHIQKIFVIITFSKHIVEQMVAFIGAVPGIGPSLQKPFQEYLEAQRQKLHHKSEMGTPQGENWLSWMFEKLVVVM VCYFILSIINSMAQSYAKRIQQRLNSEEKTK

### 1740/2682 FIGURE 1584A

TGCAACGGAAACTTTTAGCTCCACGAACAGAAAAGCAAGAGCAAAAACTCAGTTAAATGCGTTCTTCCTCCATCT TTGCCTAGTCCAAAAGGAAAAAAAAAAAAAAAAAGAAAACAGAAAAAAGAAAAACTGTTTGGAAGAGTAGCGTTGAGG TTTGCTTTTTACCTGTTTTTCCTCTAGAACAGCCAGGTGGATTCACATGATCCAATTTTTTAATTGTCTTCTATG GCCATTTCCTAATTAAGAAATGGGTTTGACAGTCCCTTTGTACACACTGCTATGCAAACCCCAAAGGGTTGGCGG TCCGTCCCCGGAAGCAAGGCTCGCGCAGACCTCTCGCTTCTCTCGGCTCTGTCTCCTGCGCTCAGCTCTGCTCGG CACCTCCCAGCCTCCCCCCCCCCCCCCGGCAGCGGGGCCCTTTCCCGGCTCAGGAACAGCAGCAGCCGGGCC GGCGGCGGCGGTGGCGGCCGCCGTCAGTTTTCGCTGAGGAGAAACACGGAAACGGACCCTTTGGCTCTCCCCCTTC CCCTTCCCCGTCCTGAACCCCTCTCCTGGTCACCGAGAATCAGTCCCCGTGGAGTTCCCCCCTCCACCTCGCCATC GTTTCCTCGGTCCTCGGCCCAGTGGAAGTCACTACCCTCGAGGAGGAGGCAGCCGCCAGCCGCCCTCGCGTCGCCG  ${\tt GGCCGGGCTGGGTCGAGCTGCGATGCCCTCGGACTTCATCTCATTGCTCAGCGCGGACCTAGACCTGGAATCGCC}$ CAAGTCCCTCTACTCGCGAGATTCTCTGAAGTTACACCCATCACAGAATTTTCATAGAGCTGGACTATTGGAAGA ATCTGTCTATGATCTTCTCCCAAAGGAGTTACAGTTACCTCCATCTAGAGAAACATCTGTAGCATCAATGAGTCA GACAAGCGGTGGTGAGGCAGGCTCGCCTCCAGCTGTTGTTGCTGCTGGATTTGCCTCTGAAGCAGGGAGTGT GCTTGCAGCTCCTTTACCACCTCTTCCAGCCCTACCATTTATTCTACCTCAGTCACCGACAGCAAGGCTATGCAA GTGGAGAGCTGCTCCTCAGCCGTGGGGGTAAGTAACAGAGGGGTAAGTGAAAAGCAGTTAACCAGTAACACAGTT CAGCAGCATCCATCAACACCGAAGAGGCACACAGTCTTGTACATCTCACCACCACCTGAGGACTTGCTGGATAAC CCCTCCAACTTCAGTAACATGAGCACCAGTTCCTACAATGATAACACTGAGGTACCTCGTAAATCACGAAAACGA AATCCAAAGCAGAGGCCGGGGGTCAAACGACGAGATTGTGAAGAATCTAATATGGATATATTTGATGCCGACAGT GCCAAAGCACCTCACTATGTGCTTTCTCAGCTTACCACGGACAACAAAGGCAACTCAAAAGCGGGAAATGGAACA TTGGAAAACCAAAAAGGAACTGGAGTAAAGAAGAGCCCTATGTTGTGTGGACAATATCCTGTTAAAAGTGAGGGA GTGAAAGATAGAACACAGCAAGGCTTTCCTACAGTAAAGCTGGAAGGCCATAATGAACCTGTAGTGTTGCAAGTG TTTGTGGGCAACGACTCTGGACGAGTGAAACCACATGGATTTTATCAGGCCTGCAGAGTAACTGGACGAAATACA ACTCCTTGCAAAGAAGTGGACATTGAAGGCACTACTGTTATAGAAGTCGGCCTTGATCCTAGCAACAACATGACA CTGGCGGTGGACTGCGTAGGGATATTGAAATTGAGGAATGCTGATGTCGAAGCCAGAATAGGAATTGCTGGTTCC AAGAAGAAAAGCACTCGTGCCAGATTGGTTTTTCGAGTTAATATCATGAGGAAAGATGGCTCCACTTTGACACTG CAAACACCCTCTTCTCCAATTTTGTGTACTCAGCCAGCAGGAGTGCCAGAAATCTTAAAGAAAAGCTTGCATAGC TGTTCAGTGAAAGGAGAAGAAGTGTTTTTAATCGGCAAGAACTTTCTGAAAGGAACTAAAGTTATTTTCCAA GAAAATGTTTCTGATGAAAACTCTTGGAAGTCAGAAGCTGAAATTGATATGGAACTATTTCATCAGAATCATCTT ATTGTGAAGGTTCCTCCCTATCATGACCAACATATAACTTTGCCTGTGTCAGTGGGAATATATGTAGTGACAAAT GCTGGAAGATCTCATGATGTTCAACCATTCACTTACACTCCAGACCCAGCAGCAGCTGGTGCTTTGAATGTAAAT GTGAAGAAGGAAATATCTAGTCCAGCAAGACCTTGCTCTTTTGAAGAGGCCATGAAAGCAATGAAAACTACTGGA TGTAATTTAGATAAGGTAAATATTATCCCTAATGCCCTGATGACTCCACTCATACCAAGCAGTATGATTAAGAGT GAAGATGTTACTCCAATGGAGGTAACAGCAGAAAAAAGATCTTCCACTATTTTTAAGACTACAAAGTCTGTTGGA TCAACTCAGCAAACATTAGAAAACATCTCAAACATAGCAGGAAATGGCTCTTTTTCATCACCATCATCTTCCCAC CTACCTTCTGAAAATGAAAAACAGCAGCAGATTCACGCCAAGGCATACAACCCAGAGACCCTGACAACTATTCAA ACCCAGGACATCTCACAGCCTGGTACTTTTCCAGCAGTTTCTGCTTCTAGTCAGCTGCCCCAACAGCGATGCACTA TTGCAGCAGGCTACACAGTTTCAGACAAGAGAAACTCAGTCTAGAGAGATATTACAGTCAGATGGTACAGTGGTT AATTTGTCACAACTGACTGAGGCATCACAACAACAGCAGCAGTCACCACTACAAGAACAAGCACAGACTTTACAG

# FIGURE 1584B

CAGCAGATTTCATCAAATATTTTTCCATCACCAAATAGTGTGAGTCAGCTTCAGAATACTATTCAGCAGCTGCAA GCAGGGAGTTTCACAGGCAGTACTGCTAGTGGCAGCAGTGGAAGTGTTGACTTGGTCCAACAAGTTTTAGAGGCA CAGCAGCAGTTATCTTCAGTTTTATTTTCTGCTCCAGATGGTAATGAGAATGTTCAAGAGCAGCTTAGTGCAGAT ATTTTCAACAAGTCAGTCAAATTCAGAGTGGTGTAAGCCCTGGAATGTTTTCCTCAACAGAGCCAACAGTCCAT ACCAGACCAGATAATTTATTACCTGGAAGAGCTGAAAGTGTTCATCCACAGTCTGAAAACACGTTATCTAATCAA CAGCAGCAGCAGCAGCAGCAACAGCAAGTGATGGAATCTTCAGCCGCAATGGTGATGGAGATGCAACAGAGTATC TGCCAGGCAGCTGCCCAGATTCAGTCAGAGTTATTCCCTTCAACTGCTTCAGCAAATGGAAACCTTCAGCAATCG CCAGTTTACCAGCAGACTTCTCACATGATGAGTGCATTGTCTACCAATGAGGATATGCAAATGCAGTGTGAATTG TTTTCTTCTCCTCCTGCAGTTTCTGGAAATGAAACTTCTACAACTACCACACAGCAGGTTGCAACCCCTGGCACT ACCATGTTTCAGACATCAAGTTCAGGAGATGGAGAAGAAACTGGAACACAAGCAAAACAGATTCAGAACAGTGTC TTTCAGACCATGGTCCAAATGCAACATAGTGGGGACAATCAACCTCAAGTTAACCTTTTTTCATCCACAAAAAGT ATGATGAGTGTTCAGAATAGTGGTACCCAACAACAAGGTAATGGTTTATTCCAGCAAGGGAATGAGATGATGTCA CTTCAATCTGGAAATTTTTTGCAGCAGTCTTCTCATTCACAGGCCCAACTTTTTCATCCTCAAAATCCTATTGCC GATGCTCAGAACCTTTCCCAGGAAACTCAAGGTTCTCTCTTTCATAGTCCAAATCCTATTGTCCACAGTCAGACT TCTACAACCTCCTGAACAAATGCAGCCTCCAATGTTTCACTCTCAAAGTACCATTGCTGTGTTACAGGGCTCT GTAGCCCAAGAAGCATTTTTTGCAGCACCGAACTCAATTTCTCCACTTCAGTCAACATCAAACAGTGAACAACAA GCTGCTTTCCAACAGCAAGCTCCAATATCACACATCCAGACTCCTATGCTTTCCCAAGAACAGGCACAACCCCCG CAGCAGGGTTTATTTCAGCCTCAGGTGGCCCTGGGCTCCCTTCCACCTAATCCAATGCCTCAAAGCCAACAAGGA ACCATGTTCCAGTCACAGCACTCAATAGTTGCCATGCAGAGTAACTCTCCATCCCAGGAACAGCAGCAGCAGCAG CAACAGCAGCAGCAGCAGCAGCAACAACAACAGAGCATTTTATTCAGTAATCAGAATACCATGGCTACAATG GCGTCTGCAAAGCAACCACCACCAACATGATATTCAACCCAAATCAAAATCCAATGGCTAATCAGGAGCAACAG AACCAGTCAATTTTTCACCAACAAGTAACATGGCCCCAATGAATCAAGAGCAACAGCCCATGCAATTTCAGAGT CAGTCCACAGTTTCCTCACTTCAGAACCCAGGTCCTACCCAGTCGGAATCATCACAGACCCCCTTGTTCCATAGC TCTCCTCAGATTCAGTTGGTACAAGGGTCACCTAGTTCTCAAGAGCAGCAAGTAACTCTCTTCTTATCTCCAGCA TCCATGTCTGCCTTGCAGACCAGTATAAATCAACAAGATATGCAACAGTCTCCTCTTTATTCCCCTCAGAACAAC ATGCCTGGAATTCAAGGAGCCACATCTTCGCCTCAACCACAGGCTACTTTATTTCACAACACAGCAGGAGGCACA ATGAACCAACTGCAGAATTCTCCTGGCTCATCTCAGCAGACATCAGGAATGTTCTTATTTGGCATTCAAAATAAC TGTAGTCAGCTTTTAACCTCTGGACCAGCTACATTGCCTGATCAGTTGATGGCCATAAGTCAGCCAGGCCAACCA CAAAACGAGGGCCAGCCACCTGTGACAACACTTCTTTCTCAGCAAATGCCAGAGAATTCTCCACTGGCATCCTCT ATAAACACCAACCAGAACATCGAAAAGATTGATTTGCTTGTTTCATTGCAAAACCAAGGGAACAACTTGACTGGC TCCTTTTAACTGGATATAAATTCCACGAAGAAAATCCTGATTCCAAGATGTCCTGAGATCTTGTGGTTCCATGAG **AATTATTACTTTAAAAACAAAACAAAATATAAAAAACTGTGTTTGAGTAAACTGATAGATTTTACTCTGACTGCA** AAAGAGCACCTATGCTGCTTGTTGCAGTGACTAACCACCAATGTTAACATCTTCATATTTTATATTCCTAATA CTTAAACGTACAGTTTAAATTCAAGGCTGGACCACTCAGTTATTATTGCTATTAGAAAATAATATATCATGTTTA CTTTTGTTCTTCATTATTTTCTTTCCTGCATTGTTTTAGTCAAGTAATGGCTTTTGAAAAAGTAAAGTTCAATAA TAACTAAGGCTGTGATTTTTTCAATATAAAAGGCACAGCTGTTGGCCAAAGTGAAGGAATCTTTTTTCAGTTTT ATTGGAGAAACTGAAGGGTAACATTCTAACAAGTAAACTGTATGTGCAGATAGAAGTACTCTTGATTTAACACAA AGGCAGATGATACACTTATAAAACTGGGAACAGCTGGAATGCTTCTTGATTTTATTTTTTCAGAGAGTTGTTAGT TCTCTGGGTTTCTACTAAGGGGTTTAGCCATAACTGTGCATAGAAAAATAATTATCTGTAAAAAATGAAGGGGAT AATATATGATAAATTATGTTCTGATATCCTCCTACAGTAGTTTAAATTGACAGAAAAATTTGAATGTTTTCTTCT TAACCCAGTCTTAGGCTGGTATTCCCTTTTTATATATATCTATATTACTTTTCACCTCTTTTTCACTTTACTTTA GAGAACTATTAATATACTACTGGCTTCATGACCCTGTAGCATCTTTGGCCACTTTAATCTAGGGTGACCTAGCAA TCCTGCAGCACAGGGCAGAGAGTACTGTCTTAGGAATTATTAGGAGTTGATTCCTGAGAAACAACACATTTTTCC AAAGGCAAACTAAAATTTCTTGAAATATCACTTCTCCCTGATCTGCAGTGAGTATAAATTCACTTGTCACCTCAG TGCTTTACAGTTTGAAGTGGTCACTTACCTGATGGTTCCCACAAGCCTTAGGCTTTACAGGGTTGTATCATTGAC

#### 1742/2682 FIGURE 1584C

TTAAAATGAAGAATTAACTTGTGTTACATCTATAAAGAGCAAAATAACACACTCCAGAACTTGGCAGTTGTAGCA TTAGTTATACAGTTTTGGGTGTTCTTGCCACCGTGGGATGCCTGCTTCTCACTACCACCTGTGTCTGGACACAT  ${\tt TTGAGAGGCATTGAATTACGTTTTCAGTAGTACAGGCTTCTTGCCGATATGAAGGGAACTTTTCAGAAAGAGACCC}$ TACTCTGGGTCATTTAATTTTGAATACAGTTTTCAATCGTTCAAGTTTTTGGATGGTTTATATCTAATGTGTGTTT GGCATAAATATAGAAATTTATATATATACATATATAAACTATTCTTTTTTTGCCACACATTTTTGTGGTAAATT ATGTCAGTAGTGGGCTAAAGGCAGCTTACTGTGTGTTTTGCTGGAGCTTTCACTCAGCCAAGTGTTAGGGTCAGGA AACCCATTGAGGCAATGGCGTCAAATGGTGTTTCACAAGAATGAGCCATTCAGTCTTTGCTCACTATATATTTAA AGAAAACCCATGTTTGTAATTTTAATAACATTTTTCCCATCTTGTAATATCCAGAGCTACTTTATAAATTCTCTG AACCAAAAGTATTTTCCTCAGTGTATCTCTTCTCCCCCAGCCCCTATTGGGAAAAATTACCCAGTATAGTTCAGG TTATGAGGAGGATCAGCCACAATCCAGTGCTTCAGTTTGAAAATGTAAAATTCTAACCCTAAAGTAGGGTTGG TTGAAATTTCAGACAAAGCAAACCCAGCAGGTATAAAAAGTAGTATAAATACAAATCTGTAAGTTATTTTTGAAT TATCAAATGCTAATTGGCAATGCCAAGTCACTGGGACCAATTTTCTGTTTTATAATATCTAAGTTTAGAACAGAA TATATACCTGAACTGTAGTGGTTTGATCGGATGGAGACAGAAAACCCGATTTTTATTCTCATAAATTTTGTGGTT AAATGTTCCTTACCCCTAAAGGTCAATGTTAAGTACAACATTCTGAAAATACAATTTGGCTACAAAGAGTATTCA TCTTCTTTGAAGCTCAGTGGTTGATATTTGTGCTAATAATGCAATTTCCTGATTACTGTTACAAGTTATAGCTAC ATATGGGAGAGACTCAGGTGAGCCAGCAAAGGCCATAGAAACAACAATTTATTAAATGTATTTATGGCAGAAGGA CCTAAATAAACTGTGAGCCACCTTTTCTTCTTTATATTGTTACATTTAAGTGTTCTCGTTTCAAGCAACTCACAT GTGTGTTTCCTTATTGTCATTCCATTATATATCCACCACCAACATGGGTGACGATAATTCAAAGTCATATTTTGCC TCTAAGCTTGATCATGTTACCTTTATGATTAAAGTATCATGTTATTTAGCCAATGCAAATCTGTTTTAAAACAAA CCCTTTCCTCCCCTCCCTGCCTCCTTCTTCCCTTCCATCTCCCCTCCTCCCTGCCTTCTTTGTTTCTCCTTCC TTGTAATATCACATGTGCTGTAGTTTGGAATTTTATTCTAGTGCATTTCTTGCTCATCAGAACCTCAGCTAATCT ACCTAGGAAAAATAGTATCAAAGGAAATGAGAAAGTTGTATCTGAGTCCCTCCAGAACTAAGATAATTCTTTTTG ACCATTTAAGCCTTTATAAATGCGTTTTGACCATTTAAGCCTTTATAAATGCTTGTTTTAGGAAAGTGAATCTGT TAGATGCATCAACAAATAATGACCAGGACAAAACGATTTAATAATTAAAGTCTCAAAATCACCATGGTTATACATT TTCACCAGAAATAGTAATCTTACAATTTTTCATTTTCTGATGAAGATTTCTGTTACAATATCTGTTTCCTAATA GATTTTTTAAATTAACTTTCCTCTCTCTTTTATGACCATAGGTTTTATCCCTAACCGAGACAGCTGTCTTATA AGAGCAAAATTGTAGAGATAATGCTCATAATGCAGTAAATATCAGAATAATATCTACAATATCATTTGTGGATGG AGAGCAGTGTGCGATCTCAGCTCACTGCAGCCTCCCAGGTTCAAGCGATTCTCCTGCCTCAGCCTCCCA TGCCATGTTGGCCAGGCTGGTTTCGAACTCCTAACCTCCAGTGATCCACCTGCCTCGGCGTCCCAAAGTGCTAGG

# 1743/2682 FIGURE 1584D

ATTTATTAATAAAATTATGTTTTTACTTTCTCTTTCAGGAAATTTTTTTAAATTAATATTTTATATCTAGATCAAA TGCTATGGAAAAGTGCCTTTTTATCATTTATAATTTCATTTTTCACTATTTCCAAAAACACATAAACAAATAGTT AGAAAAGGTACATTGCTAGAATTGTTTCTTTGGGAGAGGGTAAAAGATTACAGAATTAGACTGTTCAGCCTTTAT ATAAACTAAATTTGTCTTCATCTCAACCAGCTAATGGTAGGTCTTATCTGAATACTCATGAGAATTTTAGCATCT GTGAAACTCCATGCACCAGATGTGTGTAAATTTCAGGAAGAAAGTGTTGAAAGCATTTTCTCTGATGTTAATTAG TIGTTTATGTTAGTGTACTTCTTGTCTATCCTCAGTTAATTTACCTAGACAAAAAGTGTCAAAAGGAAATGAGAAA AAGGTTATATCTGACTCCCTCCAGACCTAAGATAATTCCTTTTGATCAGATACAGTCAGATGGAGTGCCTTGGTT AGGATAGTTCTACCTTTGGGATAGGGCTGCTTTCCCCGTGCTAGTATTTCTGTGACTGTTAGTGGCACTGAGGAC TGCAAACTTTTATGCAATATTCTTAATACCCTATTGATATTATGCACTTTAATCATTCCAAAGAAGCCAAGAATG CTGTATAGTGATGATTCCTTACTAATGAATTCATCTTAACTATTTAGAATGTTATGTCCCTTTTCTTTTGGATAG CCAACTTGGTATAAATGTTATATGGATTTTTCTAAAATGACTATATAGGACTTAAGACTTTGAAATGTAATTTAC TTATAAGGGGAAATAATTATGCTTTAGCACATCATTTTAGAAACGTCACATTTTAGAACATTCAGCTTGCTAACC TACATGTTTGGGAATTCATTTAAAACCAAGTGTCTATATATTTTTGTGCCATGTATATAAGAACATTACAATATAT CTTTTTCTACATATGTAGTATGTGCAACCAGTGGTTCTCAGAGTATGGTTCTCAGCCCACCAGCTAGTATCAGTA TCACCTGGGAACTAGTTAGAAATGTAAATTCTTTGGCCCCATCCCAGACATACTGAGTCAGAAACTCTGGAATAG GGCCCCGCAATCTGTTTTCACAAGCCCTCCAGGTGATTCTGATGCACACTTTAAAGTTTAGGAACCACTGGGCT AAGACTCTGTTGAGATATAGAGTTTTTCTTCCACTCAGACTGATATAGTTATACATTGTTCTTCATGTAAATTCA GCTTAACCTGGTTATCTATAATCTTTTATTGGCAAAAGTTAATTCTCAGTACTGCCTATAGAGATACAGTGTATT TTATGTACATACACAATTAGTCTAATTCTTGATAATTCAGTTAATTTAGTTTGGCATTTTCCTACCACTTACTAA AAGGTTTACATTAAATGACTGATTTAAATATATAGGTGCAATGTTCTATGTTTATTTTAATTGTTATGACATTTA AGTAGCTAATATAATTGACCGGTGCTAAAGTCTCCTGTTTATCCATAAAATGGGTACATTATGGGCAGTGTAATA CAAGCTTTCTTTTCATTGCCTAGTACTTTACCAGCAGACCACAGTTTTGCCTGGCTAGACCAACCCTCAGAACAA ACATTTGGGCATTTCTCGTTTCTCAAGTGTATGCATCATGGTAAATATAAACTAACCACAAGATAGGTAGATTGA TTCATTTCATTTTAATCTCCTTGTGTAATTCAGTACCTCCATAATTGTTCTAATCTTCTTCCCACTGTTTACAAA TCACCACTGCTGTCTTTCCTTAATACTAGCAGTGGAAATGTAAGTGGCTTACTCTACAAATTTTGGTGCTGGCAA ATACATAGGCAAACTGTTGGGAGCTGCTCTAGTTACATTCCTCCCTTCTTATTCCCTTTTTCTCTTCCTCACTTT ATTGCATAACATATTCCTGTACCCAAAGCATTCTACCACAGTTCTATTTGACTCCCACTTGTAATAACTCCTTTA CTTCCAGAAGTCATTTGCCTGGTTTGAAATATTTTGTAGGGATTGCTTATTATATTATTTTAGCTGATGAACCTC AGGACAACGTCTACACACACACACATACATACACGCACACAAAATCTCAGCTGTTGAAGAGTGGGCTTGGAATCA GACTTCTGTGTCCAGTAAAAAACTCCTGCACTGAAGTCATTGTGACTTGAGTAGTTACAGACTGATTCCAGTGAA CTTGATCTAATTTCTTTTGATCTAATGAATGTGTCTGCTTACCTTGTTTCCTTTTAATTGATAAGCTCCAAGTAG TTGCTAATTTTTTGACAACTTTAAATGAGTTTCATTCACTTCTTTTACTTAATGTTTTAAGTATAGTACCAATAA GCACACTGATCAACCACTGAACTGCCTTCTTCCATTGTCCTGCAATGATATAAGGGTTACATTTTTGTGTATATG GCTTTCATAGTTGGGATTTCAGAGCACTGATACCAGATATTTTCAGTTTGTTCTCTGGGGGAATTTCATTTGCAT CTATGTTTTTAGCTATCTGTGATAACTTGTTAAATATTAAAAAGATATTTTGCTTCTATTGGAACATTTGTATAC 

# 1744/2682 FIGURE 1585

MGGACSSFTTSSSPTIYSTSVTDSKAMQVESCSSAVGVSNRGVSEKQLTSNTVQQHPSTPKRHTVLYISPPPEDL LDNSRMSCQDEGCGLESEQSCSMWMEDSPSNFSNMSTSSYNDNTEVPRKSRKRNPKQRPGVKRRDCEESNMDIFD ADSAKAPHYVLSQLTTDNKGNSKAGNGTLENQKGTGVKKSPMLCGQYPVKSEGKELKIVVQPETQHRARYLTEGS RGSVKDRTQQGFPTVKLEGHNEPVVLQVFVGNDSGRVKPHGFYQACRVTGRNTTPCKEVDIEGTTVIEVGLDPSN  ${\tt NMTLAVDCVGILKLRNADVEARIGIAGSKKKSTRARLVFRVNIMRKDGSTLTLQTPSSPILCTQPAGVPEILKKS}$ LHSCSVKGEEEVFLIGKNFLKGTKVIFQENVSDENSWKSEAEIDMELFHQNHLIVKVPPYHDQHITLPVSVGIYV VTNAGRSHDVQPFTYTPDPAAAGALNVNVKKEISSPARPCSFEEAMKAMKTTGCNLDKVNIIPNALMTPLIPSSM IKSEDVTPMEVTAEKRSSTIFKTTKSVGSTQQTLENISNIAGNGSFSSPSSSHLPSENEKQQQIHAKAYNPETLT  $\verb|TIQTQDISQPGTFPAVSASSQLPNSDALLQQATQFQTRETQSREILQSDGTVVNLSQLTEASQQQQQSPLQEQAQ|$  $\verb|TLQQQISSNIFPSPNSVSQLQNTIQQLQAGSFTGSTASGSSGSVDLVQQVLEAQQQLSSVLFSAPDGNENVQEQL|$  ${\tt SADIFQQVSQIQSGVSPGMFSSTEPTVHTRPDNLLPGRAESVHPQSENTLSNQQQQQQQQQQQVMESSAAMVMEMQ}$  ${\tt QSICQAAAQIQSELFPSTASANGNLQQSPVYQQTSHMMSALSTNEDMQMQCELFSSPPAVSGNETSTITTQQVAT}$  ${\tt MMSLQSGNFLQQSSHSQAQLFHPQNPIADAQNLSQETQGSLFHSPNPIVHSQTSTTSSEQMQPPMFHSQSTIAVL}$  ${\tt QGSSVPQDQQSTNIFLSQSPMNNLQTNTVAQEAFFAAPNSISPLQSTSNSEQQAAFQQQAPISHIQTPMLSQEQA}$  ${\tt QPPQQGLFQPQVALGSLPPNPMPQSQQGTMFQSQHSIVAMQSNSPSQEQQQQQQQQQQQQQQQQQSILFSNQNTM}$  ${\tt ATMASPKQPPPNMIFNPNQNPMANQEQQNQSIFHQQSNMAPMNQEQQPMQFQSQSTVSSLQNPGPTQSESSQTPL}$ FHSSPQIQLVQGSPSSQEQQVTLFLSPASMSALQTSINQQDMQQSPLYSPQNNMPGIQGATSSPQPQATLFHNTA  ${\tt GGTMNQLQNSPGSSQQTSGMFLFGIQNNCSQLLTSGPATLPDQLMAISQPGQPQNEGQPPVTTLLSQQMPENSPL}$ ASSINTNONIEKIDLLVSLQNQGNNLTGSF

#### 1745/2682 FIGURE 1586

AGAAACGGCAGTGGCAGCGTCCGGAGCAGCCGCAGCCTTCTGGAAGCTCCAGGCGGTCTTTCTGCCGAGCCT CGGTCCCGGCCCCATCCTCCCCGCCCCATCGGTTGTTGTCTGGGCGGATTTAAACAGTCAAGTAAAATCAAGCT GGGTAATCATGGCAGAAGGTGGATTTGATCCCTGTGAATGTGTTTGCTCTCATGAACATGCAATGAGAAGACTGA TCAATCTGTTACGGCAGTCCCAGTCCTACTGCACAGACACAGAGTGTCTTCAGGAATTACCGGGACCCTCTGGTG ATAATGGCATCAGTGTTACAATGATCTTGGTAGCCTGGATGGTTATTGCATTGATCTTGTTCTTACTGAGACCTC CTAATCTAAGAGGATCCAGCCTACCTGGAAAGCCAACCAGTCCTCATAATGGACAAGATCCACCAGCTCCTCCTG ACTCTTAACCCCATTAGAACTGTTTTTCCTTTTGTATCTGCAATATGGGATGGTATTGTTTTCATGAGCTTCTAG AAATTTCACTTGCAAGTTTATTTTTGCTTCCTGTGTTACTGCCATTCCTATTTACAGTATATTTTGAGTGAATGAT TATATTTTTAAAAAGTTACATGGGGCTTTTTTGGTTGTCCTAAACTTACAAACATTCCACTCATTCTGTTTGTAA CTGTGATTATAATTTTTGTGATAATTTCTGGCCTGATTGAAGGAAATTTGAGAGGTCTGCATTTATATATTTTAA ATAGATTTGATAGGTTTTTAAATTGCTTTTTTTCATAAGGTATTTATAAAGTTATTTGGGGTTGTCTGGGATTGT GTGAAAGAAAATTAGAACCACGCTGTATTTACATTTACCTTGGTAGTTTATTTGTGGATGGCAGTTTTCTGTAGT TTTGGGGACTGTGGTAGCTCTTGGATTGTTTTGCAAATTACAGCTGAAATCTGTGTCATGGATTAAACTGGCTTA TGTGGCTAGAATAGGAAGAGAGAAAAATGAAATGGTTGTTTACTAATTTTATACTCCCATTAAAAATCTCTAAT GTTAAGAAAACCTTAAATAAACATGATTGATCAATATGGCAGATGATTTACAGTCCATTATATGACATTTGTAAG ACATAGTAATAATTTAAGCTATAATTTATTTTTAAAATGAGTGCCTCTTGGGAAGCTTCTTTTCTGTTCTAACAG TTCCCTGTTAAAATGAAAATCTTAGGCCAGTGCAGTGGCTCACACCTGTAATCTCAGCACTTTGGGAGGCTGAGG TGGGTGGATCACTTGAGGTCAGGAGTTCGAGACCAGCCTGGCCAACATGGTGAAACCCTGTCTCTACTAAAAATA CAGAAAAATTAGCCAGGGTTGGTGCATGTGCCTGTAATCCCAGCTACTCAGGAGGCCAAAGCAGGAGAATTGCTT GAACCCGGGAGGTGGAGGTGCAGTGAACCAAGATCGCACCACTGCATTCCAGCCTAAGCAATAGAGCGAGACTC ССТСССАААААААААААААААААААААААА

# 1746/2682 FIGURE 1587

 ${\tt MAEGGFDPCECVCSHEHAMRRLINLLRQSQSYCTDTECLQELPGPSGDNGISVTMILVAWMVIALILFLLRPPNLRGSSLPGKPTSPHNGQDPPAPPVD}$ 

#### 1747/2682 FIGURE 1588A

TCCGCCTGGAGGAGCTCACCAACCGCCTGGCCTCGCTGCAGCAAGAGACAAGGTGCTGAAGATAGAGCTGGAGA CCTACAAACTGAAGTGCAAGGCACTGCAGGAGGAGAACCGCGACCTGCGCAAAGCCAGCGTGACCATCCAAGCCA CCCTTGCTGTAAATTATGAGAAAGAAGAAGAAGAATTCCTCACTAATGAGCTCTCCAGAAAAATTGATGCAGTTGCAGC ATGAGAAAGCCGAACTAGAACAGCATCTTGAACAAGAGCAGGAATTTCAGGTCAACAAACTGATGAAGAAAATTA AAAAACTGGAGAATGACACCATTTCTAAGCAACTTACATTAGAACAGTTGAGACGGGAGAAGATTGACCTTGAAA CTCCAGAAAATATGATGCGTCACATCAGGTTTTTAAAGAATGAAGTGGAACGGCTGAAGAAGCAACTGAGAGCTG CTCAGTTACAGCATTCAGAGAAAATGGCACAGTATCTGGAGGAGGAACGTCACATGAGAGAAGAACTTGAGGC TAGAAATGGACGACGAAGGTATTTTAATGAGATGTCTGCACAAGGATTAAGACCTCGCACTGTGTCCAGCCCGA TCACGCCACCAACTTCACTGACTAGAGCTGGAATGTCTTATTACAATTCCCCGGGTCTTCACGTGCAGCACATGG GAACATCCCATGGTATCACAAGGCCTTCACCACGGAGAAGCAACAGTCCTGACAAATTCAAACGGCCCACGCCGC CTCCATCTCCCAACACACAGACCCAGTCCAGCCACCTCCACCTCCACCTCCGCCACCCATGCAGCCCACGGTCC  $\tt CCTCAGCAGCCACCTCGCAGCCTACTCCTTCGCAACATTCGGCGCACACCTCCTCCCAGCCT{\color{red}{\textbf{TAA}}} \\ \tt TGCATGAGCT{\color{red}{\textbf{CATGAGCT}}}$ TTGGATATGACTTATTTGCACTGAGGTTATCTAGGCTTCACTATCCATTGTGTTGTAAATGTTTGTCAGAAATGC AGCCAGTGTTGTGGGTCTACAACACTAACCAGACGACTTTTTCCATCAGTGTTTTACTTGAATCTTCATGTACGT AGCTTCATTCTCCTGGCTTTTAGGTTTGTAAAAGAAAAAGGGATATCTTTTTTATATTTTTTTCCATGAATCTGC AGAAAATTACTGAGCTGTTGTTACCCTCCTCTCATTATAATAGTGTTTTACCAAACATACCAATAATTCAGCACTA CAATTCAGACCTTTGAAAATCTGGCTTTCAGTGTAGAACAGAAAGTTAGATGAATCAGTGCCCAAGACATATTTT CTGTTTAACAGAACTTTCTACAGATACATTTTTTACAGGTTATTTCATTGTGTTATTGACATCCATGTCTCTCG ATTAAGATGTGATTCTCTTTTTTATCCTTAATGTTAATCTACTTAACCTGGCCCCCTCTAACATGAGTCGATAAA TGTTGTCCTACTCACCGGTGGTTTCAATGGCTAATTAGAATGTGTTATTTGATTTCTGCTGCAGAAGGCAGTGTG ATTGTAACAAAACAATGCGGCTTCCCCCTTTCGTACTTCATTTGTGTTCTCTTAAAATAGAGTTTGAACAAATA GAAAATATTGTATTGCTTGGCAGAAAAGAAAATAAGGTCTAAAGGAAAGTAGCACATTAGCATTGATGGCTGTTC AATAAATCATTTGGTTTCACTTTGCAGTGGAACACTGAGTCACTCTTTTCTTAACACGTGCAACATCTTAATTTT TGTTTTTCAGCAGTTGCTGTTTTGTACTTTGGTAGTGAAGTGATTTTTACCACCTGTGTTTGCATATTTATATAT GCTGTGGATGAAAATAACTTACTAGAGAATGTATATTTTATGACAAGAATGTGTATCTGTTGGATATAATCAGAG AACTGAAAAGTAATTTATCAGTAATTTTTAAGAGTCCATGTTTTGTGACAACCATCTCTAATAGCCAACTCTTTA TTAAACACACTCCTAAAAATAAGGAACCATGACATTGTAGATATTTAATATTGTACAGTATAGAAACCTCCATTT GTTTTAAGAACTTGAGAGTAAAAGCAACAATAAGATTTTTTCACCTCTTCCTGCTTCCACCCCCAAACTGAGAAC TAATACAGTTCTCAGATGCAGGGAAGAAGTTTGGCATTTAATCATTGAGGCTTTAGGTTTTTGATGTGATCAGAC GAGAGTAGGCAAACAAATTTTGCCTTCATGGTACAGTTCTCAGTTTTTCTTATAGGAGAAATATGGTATATGTTT ATAAGAATCTTTTATGAGATTATAGATTTCAATGCTGTGGATAGTGTCTTGCACCCAAACAAGAAAGTCCATAAT GGAATGATCTTCCCTCAGCTTCCTATCGATTTAGTTACCTCTTGAAAGCACAAAAATTAAAACATTGCCATATGT

#### 1748/2682 FIGURE 1588B

TGAATTTTTAAAAAGCACTTGGAGTGAGCGAACATTTCCTGATAAATGCCTTTTAGAGATAGGTTCTTGATATTC AGACATCTGCAGAAATGTTCTGGTTCCCAAAGTCATTTCACTTCGAAATAAAACACAGCTCCTTCAAACAGCACT GATGGTTCGTGTCCTTTAAAGTGTTTGAGGACCTATGCAGAGCCTGTAACACTTGGGTAGTACCTGCTAGGACAA TTTCTTGGCAATTGTCTTACTACTAGGGATCAGTAAGATTTAGATTCTGAGCCCATAATGGCAACAGCCCCCTCA CCTATGGGAAGCTGACTTCCCTCAGTCGGGCACTTCTCATGGGGGCTGAACATGGTTCCTGCCATTCTGTTACCC GGATAAGTACTCTGTTGCCAGATTACCATGCCTTTTATACAAAACCAAATTAACTTACCTAATACCTGACACCTC TTTGGGCTCTGAACTGCTTTCTCTCATCAAGCATGCTAGCACTCTAGACAGAATTCTAGAAATTTTGGCAGACAGT GGAAGCCTTTAATTGAACTTACTCCTTCGTTGACTGAAAGGAGTTTTAAATTCTGAGCTCCTGAGATACTGACTA GCAACCATGGAATGAATGTGTGACCAGAAAGTGGCTTTGACACCAAGTGCTACTGTCCCTTTGTAATTGGCTTCT AACAGATTCAACCAGAAATAATTGATAATGTGAATTTTTTGTTAATTGTTCACTTGTAGGAAAATAGAACATGTAT CACCCTTTGTTAGGTAGACATGAACTTTTCCTGCACAAAGCCTTGCTTTTAGAGAATGCCCAATAAGGCAAGAAA AAGCATAGTAACTTGTGCTTTGAGAGCTCAATATTTGTATCTTATCAGTACAGAAGAAATATTTCTGTGTAACTT GATCTTCTGTCTAGTACTTGTCTTATAGGTAACCAACACTGAAAACTTTGTAGTGATGACTACCAAAGAAATACA TTTTTTTTTCTTCTTTAATTTTTTGATTAAAACATACACACAGCTGTTAGCATAAAGTCGTGGGGGGCATTTTCT GGAATGCTCAGCAGTTCTGATTAACTGCCAAGCCCAGGTTGCCTCTCATGAGGCAACTGAAAAAATCCTGTGTCT TGATAGCATGGGTGCTGTGTGTGCATGTGTGTCTCCATTCATGCCTTAACTCGGGTTACTGCACAACTTTA GTTCTTGACTTAGTCTGCACCGTCATCTAGATTGTATTGTACATCTCGGTCTGAACTTCATCCTGGCAAAAACAA AGTTGCAGGCACAACAGTTTAAGAATGCATTCCTCCAGAAGAGTATCTGGTCAGGTTGACCCTGAGCCTTCTTTG GACTTGATTTGGAACTTAGCCTGGAAAGCGAAAGTGGACTGTCCAACAGAAAGATGTCAACAAGGAAAAGAGGAG AGCCAAGCGCTAGCATGCCTTTTGCCTCTGCATATCTGTGCACACTGTATGTTGTTCATGATAGCTTGTCTACAA CTTGACTAGGTTGGAGTTCTGGTAATAGTGGCAATCTTGACATTCTTGGTCAGAGTTTAGAGAGATGTAAGACTT ATAATTTTTTAAAATGTAAAAA

# 1749/2682 FIGURE 1589

# 1750/2682 FIGURE 1590

# FIGURE 1591

GGCACGAGGCCGCC<u>ATG</u>GCCTCTCTACTCGCCAAGGACGCCTACCTGCAGAGCCTGGCCAAGAAGATCTGCTCCC ATTCGGCCCCGGAACAGCAGGCGCGCACGCGGGCTGGCAAAACTCAAGGCTCAGAAACTGCAGGGCCCCCAAAAA GGGAGAAATCTCCAGCAGCCTCTGGGGCCAGGAGGCCTGAGGCAGCCAAAGAGGAAGCAGCTTGGGCTTCCAGCT CAGCAGGGAACCCTGCAGATGGCCTGGCCACTGAGCCTGAGTCTTTTGCTCTGGATGTTCTGCGACAGCGAC TGCATGAGAAGATCCAGGAGGCCCGGGGCCAGGGCAGTGCCAAGGAGCTGTCCCCTGCCGCCTTGGAGAAAAGGC GGCGGAGAAAGCAGGAACGGGACCGGAAGAAGAGGAAGCGAAAGGAGCTGCGGGCGAAAGAGAAGGCCAGGAAGG GGCAGAGGGTGAAGGGGAACCTCACGCCGCTGACCGGGAGGAACTACCGGCAGCTGCTGGAGCGCCTGCAGGCAC GGCAGAGCCGGCTGGACGAGCTGCGCGGCCAGGATGAGGGGGAAGGCGCAGGAGCTGGAGGCGAAGATGAAGTGGA CCAACCTCCTCTACAAGGCGGAGGGCGTGAAGATCCGTGACGACGACGCCTGCTGCAGGAGGCCCTGAAGCGCA GCCAGGACCGGCGGCGGCAGAACCTGCGCAGGAAGAAGGCGGCCGCGCGAGCGCCGCCTGCTCAGAGCCCGCA  $\tt AGAAGGGCCGCATCCTGCCGCAGGACCTGGAGCGCGCAGGCCTGGTC{\color{red}{\textbf{TGA}}} GTCTTTCCCACCTGGGGCCGCCGTC$ TTCCGTCCTAGGAGACTCCAGGACACCCTCTGAGTCCTTGACGCTGGCTCTGTCCCAGGATCTCCACAGACCTCG GCCTCTCCATGTGAGGGGGACACAGTGGTGCTCTGCTGAGTTGTGAGGGCCCAGATCACAGATCCCATGTGAGAA AGAGAGAGTTTCAGCGTCATCCTTGAACGCAGGATCCGGGACCTTCAGACCCAGGGAAAGGGTGAGGGAGACTGG GCAGTCACTGCCTGTTCCCCACTGCCTGTTTCGCAGGAGCCACGGGACAGAAGACGGTGGCCTCTGCTGCCGGG CCACGTTAGTCCGCAGCTCACCCGAACAGAGGACAACCCTGAGGTGTGGCATATGGGCACCTGGCACTGGGAGTC GGGGGAGCACGTCCAGGCGTGGTGCATCCTGGGGCAGAACGCCATGGCTCCTCCCCGCTCTCTTGGCTTCTGCCT AAGCTGGAGAGAGAGTGAAGTGAATGCAAGATACAAAGTGGGATGGAAGAATTAAATCCAGAGTTCCAGGCAATC СТААААААААААААААААААААААААААААААА

# 1752/2682 FIGURE 1592

MASLLAKDAYLQSLAKKICSHSAPEQQARTRAGKTQGSETAGPPKKKRKTQKKFRKREEKAAEHKAKSLGEKSP AASGARRPEAAKEEAAWASSSAGNPADGLATEPESVFALDVLRQRLHEKIQEARGQGSAKELSPAALEKRRRKQ ERDRKKRKRKELRAKEKARKAEEATEAQEVVEATPEGACTEPREPPGLIFNKVEVSEDEPASKAQRRKEKRQRVK GNLTPLTGRNYRQLLERLQARQSRLDELRGQDEGKAQELEAKMKWTNLLYKAEGVKIRDDERLLQEALKRKEKRR AQRQRRWEKRTAGVVEKMQQRQDRRRQNLRRKKAARAERRLLRARKKGRILPQDLERAGLV

# FIGURE 1593

GGCACGAGGGGATGGCAGAGGAGGTGAGGAGGAGGAGGAGCGTCCGGAGTGGGGCCGGGCCCGGACTCCGACCCCCG GGGCGCTTCGAGCCCCCAGCTGGTCACCGAGGCACCGCCGCTTCACCCAGGCCAGTAGCCGCCCCCTCGCGCA  $\verb|CCCGGCCCGCCTCACACGCGCGCCCCGAGCGAGCCCCGGGCTCCCCTCGGGCCCAGCGTGGCGCAGGGGTCAGT| \\$ GGTTCTCTCGGGTCTCGGGACAGGTGAGCACCCTGATGAAGGCCACGGTCCTGATGCGGCAGCCTGGGCGGGTGC  ${\tt AGGAGATCGTGGGCGCCCTCCGCAAGGGCGGCGGAGACCGGTTACAGGTGATTTCTGATTTTGAC \underline{\textbf{ATG}} \textbf{ACCTTGA}}$ GCAGGTTTGCATATAATGGAAAGCGATGCCCTTCTTCTTACAATATTCTGGATAATAGCAAGATCATCAGTGAGG AGTGTCGGAAAGAGCTCACAGCGCTCCTTCACCACTATTACCCAATTGAGATCGACCCACACCGGACCGTCAAGG AGAAGCTACCTCATATGGTGGAATGGTGGACCAAAGCGCACAATCTCCTATGTCAGCAGAAGATTCAGAAGTTTC ATAACAACATTCCCCTTTTCATCTTTTCTGCGGGCATTGGTGATATCCTGGAAGAAATTATCCGACAGATGAAAG TGTTCCACCCCAACATCCACATCGTGTCTAACTACATGGATTTTAATGAAGATGGTTTTCTCCAGGGATTTAAGG GCCAGCTGATACÁCACATACAACAAGAACAGCTCTGTGTGTGAGAACTGTGGTTACTTCCAGCAACTTGAGGGCA AAACCAATGTCATCCTGCTGGGAGACTCTATCGGGGACCTCACCATGGCCGATGGGGTTCCTGGTGTGCAGAACA TTCTCAAAATTGGCTTCCTGAATGACAAGGTGGAGGAGCGCGGGGAGCGCTACATGGACTCCTATGACATCGTGC TGGAGAAGGACGAGACTCTGGATGTGGTCAACGGGCTACTGCAGCACATCCTGTGCCAGGGGGTCCAGCTGGAGA TGCAAGGCCCCTGAAGGCGCAGGCTCCAGCCCGGCCTGCAGGCCGTGGTGAGGAGGGGGGCGCCTCCCCAGAGTCTG  $\tt CTCCCCGTGAACACAGAGCAGAGGCCAGGGTGGCCAGCAGTGGCTGGGTCCTTCCGCGCCCCTCCGTCCTCCTT$ TCCCTGAGCACCTTCATCACCAGAGGCTTGAAGGAACCCCGCCATGTGGCAGGGCACAGGCACTGTTCCTGGTGA ACCTTGGACCACAGCATGTCAGTGCTCTAGGGATTGTCTACTCCAGGGATTTTCTTCAAAATTTTTAAACATGGG 

# 1754/2682 FIGURE 1594

MTLSRFAYNGKRCPSSYNILDNSKIISEECRKELTALLHHYYPIEIDPHRTVKEKLPHMVEWWTKAHNLLCQQKI QKFQIAQVVRESNAMLREGYKTFFNTLYHNNIPLFIFSAGIGDILEEIIRQMKVFHPNIHIVSNYMDFNEDGFLQ GFKGQLIHTYNKNSSVCENCGYFQQLEGKTNVILLGDSIGDLTMADGVPGVQNILKIGFLNDKVEERRERYMDSY DIVLEKDETLDVVNGLLQHILCQGVQLEMQGP

### 1755/2682 FIGURE 1595

CTTTTCTAAGGGTATTCAAGTTTTCACCTTTTAAGCTTCATATCCTCAGTGCTTGTAGAATGATGAGCTTAGAGG  $. \verb|TACCAGGTCATTGCAGTTGTTTGCTTAAAGACTTATTGAAATGGTTACTGGCGTAAATACTTGGCCAACTCAACT|$ TTATTGCCCCTGATCTTTTCCATTTTTGTTTCCACCTTAACCTATAGCAGCTCCTCCAAATGAGGAATGCTGTAA GTAAGACTCATCAAACAGATTTTAACCATTTTATTATCCTGTGTGTCCTTACATTGCTTCTGTGAGATGTTTTTT TCTTATCTGAGATGAACTTTCAGGAGCCTATTTGAACTCCAGACTGGTGTTCTGGGGGCAAAGAGCTATTAGCCAA  ${\tt ACTGATTCTATGCAGGTGAAGGATGCACTAAAGTTCTCACTTTAGTGAGAACTTTTCTAGCTATTCCAATACAGA}$ TTATAACAGTGAACAGAGCTCCAGGTAATAACGCATAGGCATGTCAGGTTGCATCTGTATATTTGACTACATTAG TATTAGTGACATCAGGTGGATATAAAAGAAAACCCTTGGAAAGAGAACTGCCTTAGCCATGATTTCGTTAGTAGA  ${\tt CCTATTTATGATTCAATTGCAATTTCAGATAGGATGTGAACATGGAATTTCATTGAAAATAGTTTAATTTTTTA}$ TATAAAAGGTTTTGTATATAATGTGTGTCAGTGACTATTTTCAAAATCATTTTCATCAAGACACCTTTTTCTAA AATAGGCATTGCATACACATATGCACACGTATGTGCATGTGCCACACATTTTTTGTATAATGTTGGGTTTGATTA TAAAAGTGTTGTCAAATGTTTTATTTATCTGCATATAGCAGTGGTTGGCTTTTTTGAATTGAAATTTTTGCGCAT TGATGCATTGAAATAAGGAAAATTATTTATCTCTGAGCACTAAACTTATTTTTGCATATTTCTGTAATATTGCAG TCCCCAGATCCAGAACATGGGAAGTTAGGGAAAATGTGTGATTTTGTGTTTTGAATTACTGTCAGAATTACATAC ACAATTACAACAAACTTTTTTTAAAAGACATTTCATTGTACTGCAAAAATCTGAATATTTATATTTCTTGTTTTT TTCTTTATATGTTTTGCATTTTAATATGTTGAGCCACTGGAAATTTGTAACAGATTAATTTGTTATAGGAGTTTA TGCTTTGATTCTT

# 1756/2682 FIGURE 1596

MCCHCLHCLCPEPIIMETIKFIVSVALI

# 1757/2682 FIGURE 1597

# 1758/2682 FIGURE 1598

MAAAADERSPEDGEDEEEEQLVLVELSGIIDSDFLSKCENKCKVLGIDTERPILQVDSCVFAGEYEDTLGTCVI FEENVEHADTEGNNKTVLKYKCHTMKKLSMTRTLLTEKKEGEENIGGVEWLQIKDNDFSYRPNMICNFLHENEDE EVVASAPDKSLELEEEEIQMNDSSNLSCEQEKPMHLEIEDSGPLIDIPSETEGSVFMETQMLP

# 1759/2682 FIGURE 1**599A**

CGGGCTTTCTCCCGCCGAGGGGGGGGGGGGGGGCCTCTGGCTCCAGAAGCCGATTGGGGAATCACGGGGAGCGGCG  $\verb|CCCCCTTCTTTTGGGTCATTTCTGCAAACGGAAAACTCTGTAGCGTTTGGCAAAGTTGGTGCCTGCGCGCCCCT|\\$ TCAGTCGGGTGTCAANNNNNNNNNNNNNNNNNNNNNNNNAAAGATTTCGGTTCGTGTCTGCTTCTCCAAGCTTT ATTTTTTTTTTAAAATACATCGCACCACCAAACTCACACTCGCACACCCCCGCGGTTACTCCGTGTCAAACTC TGATGTCAAGCTGAACCATCGTAGGAAGTTGAAAGCCTTAGAAAGAGGACTTGGTAAAGTTTTTGGATTATCTTG AAACTCTGGCAAA<u>ATG</u>GCCAAGTATGGAGAACATGAAGCCAGTCCTGACAATGGGCAGAACGAATTCAGTGATAT CATTAAGTCCAGATCTGATGAACACAATGACGTACAGAAGAAAACCTTTACCAAATGGATAAATGCTCGATTTTC AGGCCTCACAGGAACATCACTGCCAAAGGAACGTGGTTCCACAAGGGTACATGCCTTAAATAACGTCAACAGAGT ACTGACTTTGGGGTTACTTTGGAGCATCATTTTGCACTGGCAGGTGAAAGATGTCATGAAGGATGTCATGTCGGA CCTGCAGCAGACGAACAGTGAGAAGATCCTGCTCAGCTGGGTGCGTCAGACCACCAGGCCCTACAGCCAAGTCAA CGTCCTCAACTTCACCACCAGCTGGACAGATGGACTCGCCTTTAATGCTGTCCTCCACCGACATAAACCTGATCT CTTCAGCTGGGATAAAGTTGTCAAAATGTCACCAATTGAGAGACTTGAACATGCCTTCAGCAAGGCTCAAACTTA TTTGGGAATTGAAAAGCTGTTAGATCCTGAAGATGTTGCCGTTCAGCTTCCTGACAAGAAATCCATAATTATGTA TTTAACATCTTTGTTTGAGGTGCTACCTCAGCAAGTCACCATAGACGCCATCCGTGAGGTAGAGACACTCCCAAG GAAATATAAAAAAGAATGTGAAGAAGAGGCAATTAATATACAGAGTACAGCGCCTGAGGAGGAGCATGAGAGTCC CCGAGCTGAAACTCCCAGCACTGTCACTGAGGTCGACATGGATCTGGACAGCTATCAGATTGCGTTGGAGGAAGT GCTGACCTGGTTGCTTCTGCTGAGGACACTTTCCAGGAGCAGGATGATATTTCTGATGATGTTGAAGAAGTCAA GGCAGGCAACCAACTGATAACACAAGGAACTCTGTCAGACGAAGAAGAATTTGAGATTCAGGAACAGATGACCCT ACTGCAGAAGAAGCAACTGCAGCAGCTCTCCGCCTGGTTAACACTCACAGAGGAGCGCATTCAGAAGATGGAAAC TTGCCCCCTGGATGATGATGTAAAATCTCTACAAAAGCTGCTAGAAGAACATAAAAGTTTGCAAAGTGATCTTGA GGCTGAACAGGTGAAAGTAAATTCACTAACTCACATGGTGGTCATTGTTGATGAAAACAGTGGTGAGAGTGCTAC AGCTATCCTAGAAGACCAGTTACAGAAACTTGGTGAGCGCTGGACAGCAGTATGCCGTTGGACTGAAGAACGCTG GAATAGGTTACAAGAAATCAATATATTGTGGCAGGAATTATTGGAAGAACAGTGCTTGTTGAAAGCTTGGTTAAC CGAAAAAGAAGAGGCTTTAAATAAAGTCCAGACAAGCAACTTCAAAGACCAAAAGGAACTAAGTGTCAGTGTTCG TGTGGGACAATTACTTGATAATTCCAAGGCATCTAAGAAGATCAACAGTGACTCAGAGGAACTGACTCAAAGATG GGATTCTTTGGTTCAGAGACTAGAAGATTCCTCCAACCAGGTGACTCAGGCTGTAGCAAAGCTGGGGATGTCTCA GATTCCTCAGAAGGACCTTTTGGAGACTGTTCGTGTAAGAGAACAAGCAATTACAAAAAAATCTAAGCAGGAACT GCCTCCTCCTCCCCCAAAGAAGAAGACAGATCCATGTGGATATTGAAGCTAAGAAAAAGTTTGATGCTATAAG TGCAGAGCTGTTGAACTGGATTTTGAAATGGAAAACTGCCATTCAGACCACAGAGATAAAAGAGTATATGAAGAT GCAAGACACTTCCGAAATGAAAAAGAAGTTGAAGGCATTAGAAAAAGAACAGAGAGAAAAGAATCCCCAGAGCAGA TGAATTAAACCAAACTGGACAAATCCTTGTGGAGCAAATGGGAAAAGAAGGCCTTCCTACTGAAGAAATAAAAA ACAGGAAGATATAAATGCTTATTTCAAGCAGCTTGATGAGCTTGAAAAGGTCATCAAGACAAAGGAGGAGTGGGT AAAACACACTTCCATTTCTGAATCTTCCCGGCAGTCCTTGCCAAGCTTGAAGGATTCCTGTCAGCGGGAATTGAC AAATCTTCTTGGCCTTCACCCCAAAATTGAAATGGCTCGTGCAAGCTGCTCGGCCCTGATGTCTCAGCCTTCTGC CCCAGATTTTGTCCAGCGGGGCTTCGATAGCTTTCTGGGCCGCTACCAAGCTGTACAAGAGGCTGTAGAGGATCG TCAACAACATCTAGAGAATGAACTGAAGGGCCAACCTGGACATGCATATCTGGAAACATTGAAAACACTGAAAGA TGTGCTAAATGATTCAGAAAATAAGGCCCAGGTGTCTCTGAATGTCCTTAATGATCTTGCCAAGGTGGAGAAGGC CCTGCAAGAAAAAAGACCCTTGATGAAATCCTTGAGAATCAGAAACCTGCATTACATAAACTTGCAGAAGAAAC AAAGGCTCTGGAGAAAAATGTTCATCCTGATGTAGAAAAATTATATAAGCAAGAATTTGATGATGTGCAAGGAAA

#### 1760/2682 FIGURE 1599B

GTGGAACAAGCTAAAGGTCTTGGTTTCCAAAGATCTACATTTGCTTGAGGAAATTGCTCTCACACTCAGAGCTTT TGAGGCCGATTCAACAGTCATTGAGAAGTGGATGGATGGCGTGAAAGACTTCTTAATGAAACAGCAGGCTGCCCA AGGAGACGACGCAGGTCTACAGAGGCAGTTAGACCAGTGCTCTGCATTTGTTAATGAAATAGAAACAATTGAATC ATCTCTGAAAAACATGAAGGAAATAGAGACTAATCTTCGAAGTGGTCCAGTTGCTGGAATAAAAACTTGGGTGCA GACAAGACTAGGTGACTACCAAACTCAACTGGAGAAACTTAGCAAGGAGATCGCTACTCAAAAAAGTAGGTTGTC TGAAAGTCAAGAAAAAGCTGCGAACCTGAAGAAAGACTTGGCAGAGATGCAGGAATGGATGACCCAGGCCGAGGA AGAATATTTGGAGCGGGATTTTGAGTACAAGTCACCAGAAGAGCTTGAGAGTGCTGTGGAAGAGATGAAGAGGGC AAAAGAGGATGTGTTGCAGAAGGAGGTGAGAGTGAAGATTCTCAAGGACAACATCAAGTTATTAGCTGCCAAGGT GCCCTCTGGTGGCCAGGAGTTGACGTCTGAGCTGAATGTTGTGCTGGAGAATTACCAACTTCTTTGTAATAGAAT TCGAGGAAAGTGCCACACGCTAGAGGAGGTCTGGTCTTGTTGGATTGAACTGCTTCACTATTTGGATCTTGAAAC AGCCCTGGAGTCTCTGGAATCTGTTCTGCGCCACCCGGCAGATAATCGCACCCAGATTCGAGAGCTTGGCCAGAC TCTGATTGATGGGGGGATCCTGGATGATAATCAGTGAGAAACTGGAGGCTTTCAACAGCCGATATGAAGATCT AAGTCACCTGGCAGAGAGCAAGCAGATTTCTTTGGAAAAGCAACTCCAGGTGCTGCGGGAAACTGACCAGATGCT CCAAGTTCCACAGGAAGCTCAGAAAATCCAAGCAGAGATCTCAGCCCATGAGCTAACCCTAGAGGAGTTGAGAAG GAGGAAACTCCGAGAGGTGTCCACAAAGTTCCAGCTTTTCCAGAAGCCAGCTAACTTCGAGCAGCGCATGCTGGA CTGCAAGCGTGTGCTGGATGGCGTGAAAGCAGAACTTCACGTTCTGGATGTGAAGGACGTAGACCCTGACGTCAT ACAGACGCACCTGGACAAGTGTATGAAACTGTATAAAACTTTGAGTGAAGTCAAACTTGAAGTGGAAACTGTGAT GAAGGTTCTTTACAATGACCTGGGCGCACAGGTGACAGAAGGAAAACAGGATCTGGAAAGAGCATCACAGTTGGC CCGGAAAATGAAGAAGAGCTGCTTCTCTCTGAATGGCTTTCTGCTACTGAAACTGAATTGGTACAGAAGTC CACTTCAGAAGGTCTGCTTGGTGACTTGGATACAGAAATTTCCTGGGCTAAAAATGTTCTGAAGGATCTGGAAAA TTTAGAAGAGGCTCTGCGTCCTTAACGCTGGGTGGAGCCGAGTTCGTACCTGGACTGAAGATTGGTGCAATAC CTTGATGAACCATCAGAACCAGCTAGAAATATTTGATGGGAACGTGGCTCACATAAGTACCTGGCTTTATCAAGC TGAAGCTCTATTGGATGAAATTGAAAAGAAACCAACAAGTAAACAGGAAGAATTGTGAAGCGTTTAGTATCTGA GCTGGATGATGCCAACCTCCAGGTTGAAAATGTCCGCGATCAAGCCCTTATTTTGATGAATGCCCGTGGAAGCTC AAGCAGGGAGCTTGTAGAACCAAAGTTAGCTGAGCTGAATAGGAACTTTGAAAAGGTGTCTCAACATATCAAAAG TGCCAAATTGCTAATTGCTCAGGAACCATTATACCAATGTTTGGTCACCACTGAAACATTTGAAACTGGTGTGCC TTTCTCTGACTTGGAAAAATTAGAAAATGACATAGAAAATATGTTAAAATTTGTGGAAAAACACTTGGAATCCAG TGATGAAGATGAAAAGATGGATGAGGAGAGTGCCCAGATTGAGGAAGTTCTACAAAGAGGAGAAGAAATGTTACA TCAACCTATGGAAGATAATAAAAAAGAAAAGATCCGTTTGCAATTATTACTTTTGCATACTAGATACAACAAAAT TAAGGCAATCCCTATTCAACAGAGGAAAATGGGTCAACTTGCTTCTGGAATTAGATCATCACTTCTTCCTACAGA TTATCTGGTTGAAATTAACAAAATTTTACTTTGCATGGATGATGTTGAATTATCGCTTAATGTTCCAGAGCTCAA CACTGCTATTTACGAAGACTTCTCTTTTCAGGAAGACTCTCTGAAGAATATCAAAGACCAACTGGACAAACTTGG AGAGCAGATTGCAGTCATTCATGAAAAACAGCCAGATGTCATCCTTGAAGCCTCTGGACCTGAAGCCATTCAGAT CAGAGATACACTTACTCAGCTGAATGCAAAATGGGACAGAATTAATAGAATGTACAGTGATCGGAAAGGTTGTTT TGACAGGGCAATGGAAGAATGGAGACAGTTCCATTGTGACCTTAATGACCTCACACAGTGGATAACAGAGGCTGA AGAATTACTGGTTGATACCTGTGCTCCAGGTGGCAGCCTGGACTTAGAGAAAGCCAGGATACATCAGCAGGAACT TGAGGTGGGCATCAGCAGCCAGCCCAGTTTTGCAGCACTAAACCGAACTGGGGATGGGATTGTGCAGAAACT CTCCCAGGCAGATGGAAGCTTCTTGAAAGAAAAACTGGCAGGTTTAAACCAACGCTGGGATGCAATTGTTGCAGA AGTGAAGGATAGGCAGCCAAGGCTAAAAGGAGAAAGTAAGCAGGTGATGAAGTACAGGCATCAGCTAGATGAGAT TATCTGTTGGTTAACAAAGGCTGAGCATGCTATGCAAAAGAGATCAACCACCGAATTGGGAGAAAACCTGCAAGA ATTAAGAGACTTAACTCAAGAAATGGAAGTACATGCTGAAAAACTCAAATGGCTGAATAGAACTGAATTGGAGAT GCTTTCAGATAAAAGTCTGAGTTTACCTGAAAGGGATAAAATTTCAGAAAGCTTAAGGACTGTAAATATGACATG GAATAAGATTTGCAGAGAGGTGCCTACCACCCTGAAGGAATGCATCCAGGAGCCCAGTTCTGTTTCACAGACAAG

# FIGURE 1599C

GATTGCTGCTCATCCTAATGTCCAAAAGGTGGTGCTAGTATCATCTGCGTCAGATATTCCTGTTCAGTCTCATCG CCAGATGCTGAAGTCCAACATTGTCACTGTTGGGGATGTAGAAGAGATCAATAAGACCGTTTCCCGAATGAAAAT TACAAAGGCTGACTTAGAACAGCGCCATCCTCAGCTGGATTATGTTTTTACATTGGCACAGAATTTGAAAAAATAA AGCTTCCAGTTCAGATATGAGAACAGCAATTACAGAAAAATTGGAAAGGGTCAAGAACCAGTGGGATGGCACCCA GCATGGCGTTGAGCTAAGACAGCAGCTTGAGGACATGATTATTGACAGTCTTCAGTGGGATGACCATAGGGA GGAGACTGAAGAACTGATGAGAAAATATGAGGCTCGACTCTATATTCTTCAGCAAGCCCGACGGGATCCACTCAC CAAACAAATTTCTGATAACCAAATACTGCTTCAAGAACTGGGTCCTGGAGATGGTATCGTCATGGCGTTCGATAA GGCCTCTCGCAGAGATCTGGAAAACTTCCTGAAGTGGATCCAAGAAGCAGAGACCACAGTGAATGTGCTTGTGGA TGCCTCTCATCGGGAGAATGCTCTTCAGGATAGTATCTTGGCCAGGGAACTCAAACAGCAGATGCAGGACATCCA GGCAGAAATTGATGCCCACAATGACATATTTAAAAGCATTGACGGAAACAGGCAGAAGATGGTAAAAGCTTTGGG AAATTCTGAAGAGGCTACTATGCTTCAACATCGACTGGATGATATGAACCAAAGATGGAATGACTTAAAAGCAAA ATCTGCTAGCATCAGGGCCCATTTGGAGGCCAGCGCTGAGAAGTGGAACAGGTTGCTGATGTCCTTAGAAGAACT GATCAAATGCCTGAATATGAAAGATGAAGAGCTTAAGAAACAAATGCCTATTGGAGGAGATGTTCCAGCCTTACA CCAGGCCCGAGTTTTCTTGGCTGATCAGCCAATTGAGGCCCCTGAAGAGCCCAAGAAGAAACCTACAATCAAAAAC AGAATTAACTCCTGAGGAGAGAGCCCAAAAGATTGCCAAAGCCATGCGCAAACAGTCTTCTGAAGTCAAAGAAAA ATGGGAAAGTCTAAATGCTGTAACTAGCAATTGGCAAAAGCAAGTGGACAAGGCATTGGAGAAACTCAGAGACCT GCAGGGAGCTATGGATGACCTGGACGCTGACATGAAGGAGGCAGAGTCCGTGCGGAATGGCTGGAAGCCCGTGGG AGACTTACTCATTGACTCGCTGCAGGATCACATTGAAAAAATCATGGCATTTAGAGAAAAATTGCACCAATCAA CTTTAAAGTTAAAACGGTGAATGATTTATCCAGTCAGCTGTCTCCACTTGACCTGCATCCCTCTAAAGATGTC TCGCCAGCTAGATGACCTTAATATGCGATGGAAACTTTTACAGGTTTCTGTGGATGATCGCCTTAAACAGCTTCA GGAAGCCCACAGAGATTTTGGACCATCCTCTCAGCATTTTCTCTCTACGTCAGCTCCAGCTGCCGTGGCAAAGATC CATTICACATAATAAAGTGCCCTATTACATCAACCATCAAACACAGACCACCTGTTGGGACCATCCTAAAATGAC CGAACTCTTTCAATCCCTTGCTGACCTGAATAATGTACGTTTTTCTGCCTACCGTACAGCAATCAAAATCCGAAG ACTACAAAAAGCACTATGTTTGGATCTCTTAGAGTTGAGTACAACAAATGAAATTTTCAAACAGCACAAGTTGAA CCAAAATGACCAGCTCCTCAGTGTTCCAGATGTCATCAACTGTCTGACAACAACTTATGATGGACTTGAGCAAAT GCATAAGGACCTGGTCAACGTTCCACTCTGTGTTGATATGTGTCTCAATTGGTTGCTCAATGTCTATGACACGGG ATACAGATATCTCTTTAAGGAAGTTGCAGGGCCAACAGAAATGTGTGACCAGAGGCAGCTGGGCCTGTTACTTCA TGATGCCATCCAGATCCCCCGGCAGCTAGGTGAAGTAGCAGCTTTTGGAGGCAGTAATATTGAGCCTAGTGTTCG CAGCTGCTTCCAACAGAATAACAATAAACCAGAAATAAGTGTGAAAGAGTTTATAGATTGGATGCATTTGGAACC ACAGTCCATGGTTTGGCTCCCAGTTTTACATCGAGTGGCAGCGGGGGGAGACTGCAAAACATCAGGCCAAATGCAA CATCTGTAAAGAATGTCCAATTGTCGGGTTCAGGTATAGAAGCCTTAAGCATTTTAACTATGATGTCTGCCAGAG TTGTTTCTTTTCGGGTCGAACAGCAAAAGGTCACAAATTACATTACCCAATGGTGGAATATTGTATACCTACAAC ATCTGGGGAAGATGTACGAGACTTCACAAAGGTACTTAAGAACAAGTTCAGGTCGAAGAAGTACTTTGCCAAACA CCCTCGACTTGGTTACCTGCCTGTCCAGACAGTTCTTGAAGGTGACAACTTAGAGACTCCTATCACACTCATCAG TATGTGGCCAGAGCACTATGACCCCTCACAATCTCCTCAACTGTTTCATGATGACACCCATTCAAGAATAGAACA ATATGCCACACGACTGGCCCAGATGGAAAGGACTAATGGGTCTTTTCTCACTGATAGCAGCTCCACCACAGGAAG GAGCCCAGCTCAGATCCTGAAGTCAGTAGAGAGGGAAGAACGTGGAGAACTGGAGAGGATCATTGCTGACCTGGA GGAAGAACAAAGAAATCTACAGGTGGAGTATGAGCAGCTGAAGGACCAGCACCTCCGAAGGGGGCTCCCTGTCGG TTCACCGCCAGAGTCGATTATATCTCCCCATCACACGTCTGAGGATTCAGAACTTATAGCAGAAGCAAAACTCCT CAGGCAGCACAAAGGTCGGCTGGAGGCTAGGATGCAGATTTTAGAAGATCACAATAAACAGCTGGAGTCTCAGCT  $\verb|CCACCGCCTCCGACAGCTGCTGGAGCAGCCTGAATCTGATTCCCGAATCAATGGTGTTTCCCCATGGGCTTCTCC|\\$ TCAGCATTCTGCACTGAGCTACTCGCTTGATCCAGATGCCTCCGGCCCACAGTTCCACCAGGCAGCGGGAGAGGA

#### 1762/2682 FIGURE 1599D

 $\verb|CCTGCTGGCCCCACCGCACGACACCAGCACGGATCTCACGGAGGTCATGGAGCAGATTCACAGCACGTTTCCATC| \\$  ${\tt CAGTGTTGCCCTTTTCAGCAAATGCCAATTCCAAGTTCCATTAAATCAGAAGCTCCATGGCTCCTTGGCCCACGA}$ TGTTGAGTGCTGACTGTGTTCTACTGAAAGAGTAAAACACTGACTATCCAAAGAGAAATGGATATTTTGTTTT TATAATAACCATATATTGTTTTCTTCTTCCCTTTCTATGCAAGTGTAAATTAATGAACAGAGAGGTATTTGG ATACCGTCTTTTTAATAACTATGACAAAGCTTACATAAGAATTAGAAGACCACTTTACATTTTTACATTCCTTCT GCTGTTCATATTAACCTTGCACAATTACTTCATTTTTTCTTTGACTCTTTTACCACAATGTTTTTGGTTATTATA ATTTATCAGCCATATGTTTATCAGCCATATAACCAACTAGATCCCAAATAGATCCATGTATTTGTTTCCGTGATT TGGCCACATTAATAAATTCATAAATTTCAATCAAATATCTTATATATACACACATATGGTTTAAGCTACAGCCCT CCTATAAGCCTAAATGGCATTTCTTTTGGGATATTTTTCCTGCATTTTATTCCCTTTTTATATAAGTAGGAATTA ATTATTTATTTTATGTCTTAATCTATTTGATAAAGAAGACTACATTATAATAATCTCAAAGATCATATTACCAAA GGTTGCCCACTTGAGCATATTTTCATTTTGACACAGAAACAAAATTTAGTACAACCTTTCCTAGTTCCCATGTCT TGATTTTCATCATTACATGCACAGCAGACCTTTACCTATTGTGATACCAGAACACATCATTGTCTTTGGTTCCCT TCAAAGAGAATTTTATTGTTGTTTTTGTATTTTCAAGTCCTTAATAGTTCTTGAAACTCCTAGTTGTTTTCTTGTT GAAAGCAGACACATTTAGTGCACGGCTTATTTTACCTTTCGGGTGAAAGATCAGATGTTTTTATACCCTTCAC TTGATCAATATTTTGGAAAGAATGTTTATCAAAAGTCTATGTCACTGCTTCTACAGAAGAATGAAATTAATGCT TAGGTGATGGTACCTCCACCTACATCTTTTTGAGTGCATTCAATTATGTATTTTGGTTTAGCTTCTGATTTAACA TTTGATTCAAACCTAAAGACATAAAAACATAAAGACATTTTAACTTTGGGTTCTCTTTAGCTGGGATCTGGCCAG CAGCAGAGATATTTTGAAAAGAAGAAAATTGTTTTATATAAAAAGGAAAGCCATGACCACCTTTCTACCTCAGAT CCATCTTCATCCATTGCATTGGAAACTGCTTTATGCTGCTGCAGTCTGCAAAGTCTAGAGCTTTTATCAGGCCAT GTCATACCCAAGAAAGCACCTATTTAAAGAAAAAACAATTCCCTGAGCTCTCAACTCCAAGTTGTAGATTTGGTG  ${\tt TGCAGTAACAATGGGAAGTAAGTATGTAGTTCTTTTGAAATATGTGGTAAAGAACTAATCACAGACTATCATCTA}$ AGAAAGAGGTAATGAAATGGCAGGAATTCAGATATCAGCTTATCATACC

#### 1763/2682 FIGURE 1600

MAKYGEHEASPDNGQNEFSDIIKSRSDEHNDVQKKTFTKWINARFSKSGKPPINDMFTDLKDGRKLLDLLEGLTG  ${\tt TSLPKERGSTRVHALNNVNRVLQVLHQNNVELVNIGGTDIVDGNHKLTLGLLWSIILHWQVKDVMKDVMSDLQQT}$  $\tt NSEKILLSWVRQTTRPYSQVNVLNFTTSWTDGLAFNAVLHRHKPDLFSWDKVVKMSPIERLEHAFSKAQTYLGIE$ KLLDPEDVAVQLPDKKSIIMYLTSLFEVLPQQVTIDAIREVETLPRKYKKECEEEAINIQSTAPEEEHESPRAET  ${\tt PSTVTEVDMDLDSYQIALEEVLTWLLSAEDTFQEQDDISDDVEEVKDQFATHEAFMMELTAHQSSVGSVLQAGNQ}$  $\verb|LITQGTLSDEEEFEIQEQMTLLNARWEALRVESMDRQSRLHDVLMELQKKQLQQLSAWLTLTEERIQKMETCPLD| \\$  $\verb|DDVKSLQKLLEEHKSLQSDLEAEQVKVNSLTHMVVIVDENSGESATAILEDQLQKLGERWIAVCRWIEERWNRLQ| \\$ EINILWQELLEEQCLLKAWLTEKEEALNKVQTSNFKDQKELSVSVRRLAILKEDMEMKRQTLDQLSEIGQDVGQL  $\verb|LDNSKASKKINSDSEELTQRWDSLVQRLEDSSNQVTQAVAKLGMSQIPQKDLLETVRVREQAITKKSKQELPPPP|$ PPKKRQIHVDIEAKKKFDAISAELLNWILKWKTAIQTTEIKEYMKMQDTSEMKKKLKALEKEQRERIPRADELNQ TGQILVEQMGKEGLPTEEIKNVLEKVSSEWKNVSQHLEDLERKIQLQEDINAYFKQLDELEKVIKTKEEWVKHTS ISESSRQSLPSLKDSCQRELTNLLGLHPKIEMARASCSALMSQPSAPDFVQRGFDSFLGRYQAVQEAVEDRQQHL ENELKGQPGHAYLETLKTLKDVLNDSENKAQVSLNVLNDLAKVEKALQEKKTLDEILENQKPALHKLAEETKALE KNVHPDVEKLYKQEFDDVQGKWNKLKVLVSKDLHLLEEIALTLRAFEADSTVIEKWMDGVKDFLMKQQAAQGDDA GLQRQLDQCSAFVNEIETIESSLKNMKEIETNLRSGPVAGIKTWVQTRLGDYQTQLEKLSKEIATQKSRLSESQE KAANLKKDLAEMQEWMTQAEEEYLERDFEYKSPEELESAVEEMKRAKEDVLOKEVRVKILKDNIKLLAAKVPSGG QELTSELNVVLENYQLLCNRIRGKCHTLEEVWSCWIELLHYLDLETTWLNTLEERMKSTEVLPEKTDAVNEALES LESVLRHPADNRTQIRELGQTLIDGGILDDIISEKLEAFNSRYEDLSHLAESKQISLEKQLQVLRETDOMLOVLO  ${\tt ESLGELDKQLTTYLTDRIDAFQVPQEAQKIQAEISAHELTLEELRRNMRSQPLTSPESRTARGGSQMDVLQRKLR}$ EVSTKFQLFQKPANFEQRMLDCKRVLDGVKAELHVLDVKDVDPDVIQTHLDKCMKLYKTLSEVKLEVETVIKTGR HIVQKQQTDNPKGMDEQLTSLKVLYNDLGAQVTEGKQDLERASQLARKMKKEAASLSEWLSATETELVOKSTSEG  $\verb|LLGDLDTEISWAKNVLKDLEKRKADLNTITESSAALQNLIEGSEPILEERLCVLNAGWSRVRTWTEDWCNTLMNH|$  ${\tt QNQLEIFDGNVAHISTWLYQAEALLDEIEKKPTSKQEEIVKRLVSELDDANLQVENVRDQALILMNARGSSSREL}$ VEPKLAELNRNFEKVSQHIKSAKLLIAQEPLYQCLVTTETFETGVPFSDLEKLENDIENMLKFVEKHLESSDEDE  ${\tt KMDEESAQIEEVLQRGEEMLHQPMEDNKKEKIRLQLLLLHTRYNKIKAIPIQQRKMGQLASGIRSSLLPTDYLVE}$ INKILLCMDDVELSLNVPELNTAIYEDFSFQEDSLKNIKDQLDKLGEQIAVIHEKQPDVILEASGPEAIQIRDTL TQLNAKWDRINRMYSDRKGCFDRAMEEWRQFHCDLNDLTQWITEAEELLVDTCAPGGSLDLEKARIHQQELEVGI  ${\tt SSHQPSFAALNRTGDGIVQKLSQADGSFLKEKLAGLNQRWDAIVAEVKDRQPRLKGESKQVMKYRHQLDEIICWL}$  ${\tt TKAEHAMQKRSTTELGENLQELRDLTQEMEVHAEKLKWLNRTELEMLSDKSLSLPERDKISESLRTVNMTWNKIC}$ REVPTTLKECIQEPSSVSQTRIAAHPNVQKVVLVSSASDIPVQSHRTSEISIPADLDKTITELADWLVLIDOMLK  ${\tt SNIVTVGDVEEINKTVSRMKITKADLEQRHPQLDYVFTLAQNLKNKASSSDMRTAITEKLERVKNQWDGTQHGVE}$  $\verb|LRQQQLEDMIIDSLQWDDHREETEELMRKYEARLYILQQARRDPLTKQISDNQILLQELGPGDGIVMAFDNVLQK|$  ${\tt LLEEYGSDDTRNVKETTEYLKTSWINLKQSIADRQNALEAEWRTVQASRRDLENFLKWIQEAETTVNVLVDASHR}$ ENALQDSILARELKQQMQDIQAEIDAHNDIFKSIDGNRQKMVKALGNSEEATMLQHRLDDMNQRWNDLKAKSASI RAHLEASAEKWNRLLMSLEELIKWLNMKDEELKKQMPIGGDVPALQLQYDHCKALRRELKEKEYSVLNAVDQARV  ${ t FLADQPIEAPEEPRRNLQSKTELTPEERAQKIAKAMRKQSSEVKEKWESLNAVTSNWQKQVDKALEKLRDLQGAM$ DDLDADMKEAESVRNGWKPVGDLLIDSLQDHIEKIMAFREEIAPINFKVKTVNDLSSQLSPLDLHPSLKMSRQLD DLNMRWKLLQVSVDDRLKQLQEAHRDFGPSSQHFLSTSVQLPWQRSISHNKVPYYINHQTQTTCWDHPKMTELFQ SLADLNNVRFSAYRTAIKIRRLQKALCLDLLELSTTNEIFKQHKLNQNDQLLSVPDVINCLTTTYDGLEQMHKDL VNVPLCVDMCLNWLLNVYDTGRTGKIRVQSLKIGLMSLSKGLLEEKYRYLFKEVAGPTEMCDQRQLGLLLHDAIQ IPRQLGEVAAFGGSNIEPSVRSCFQQNNNKPEISVKEFIDWMHLEPQSMVWLPVLHRVAAAETÁKHQAKCNICKE CPIVGFRYRSLKHFNYDVCQSCFFSGRTAKGHKLHYPMVEYCIPTTSGEDVRDFTKVLKNKFRSKKYFAKHPRLG YLPVQTVLEGDNLETPITLISMWPEHYDPSQSPQLFHDDTHSRIEQYATRLAQMERTNGSFLTDSSSTTGSVEDE HALIQQYCQTLGGESPVSQPQSPAQILKSVEREERGELERIIADLEEEQRNLQVEYEQLKDQHLRRGLPVGSPPE  ${ t SIISPHHTSEDSELIAEAKLLRQHKGRLEARMQILEDHNKQLESQLHRLRQLLEQPESDSRINGVSPWASPQHSA}$  ${\tt LSYSLDPDASGPQFHQAAGEDLLAPPHDTSTDLTEVMEQIHSTFPSCCPNVPSRPQAM}$ 

#### 1764/2682 FIGURE 1601A

· CGGAGACACAGGCTCAAGATGGCAGATTCCGACTGAGGCTGGGGGGGCCGAGCTCGCGCGCCGCTTTCCCGTCCC  $\tt CGTTGCCATGAACCGCGGACACCCCGGCCCCGATGGCCCCGTGTACGAAGGTATGGCCTCACATGTGCAAGTTT$ TCTCCCCTCACACCCTTCAATCAAGTGCCTTCTGTAGTGTGAAGAAACTGAAAATAGAGCCGAGTTCCAACTGGG CAACCGTCAGCACCTCCTTGCCGGTCCCAAACCCAAGCCTACCTTACGAGCAGACCATCGTCTTCCCAGGAAGCA TGCGTCGAAGCACTGTGAGCCTCCTTGATACCTACCAAAAATGTGGACTCAAGCGTAAGAGCGAGGAGATCGAGA ACACAAGCAGCGTGCAGATCATCGAGGAGCATCCACCCATGATTCAGAATAATGCAAGCGGGGCCACTGTCGCCA CTGCCACCACGTCTACTGCCACCTCCAAAAACAGCGGCTCCAACAGCGAGGGCGACTATCAGCTGGTGCAGCATG AGGTGCTGTGCTCCATGACCAACACCTACGAGGTCTTAGAGTTCTTGGGCCGAGGGACGTTTGGGCAAGTGGTCA AGTGCTGGAAACGGGGCACCAATGAGATCGTAGCCATCAAGATCCTGAAGAACCACCCATCCTATGCCCGACAAG GTCAGATTGAAGTGAGCATCCTGGCCCGGTTGAGCACGGAGAGTGCCGATGACTATAACTTCGTCCGGGCCTACG AATGCTTCCAGCACAAGAACCACACGTGCTTGGTCTTCGAGATGTTGGAGCAGAACCTCTATGACTTTCTGAAGC AAAACAAGTTTAGCCCCTTGCCCCTCAAATACATTCGCCCAGTTCTCCAGCAGGTAGCCACAGCCCTGATGAAAC TCAAAAGCCTAGGTCTTATCCACGCTGACCTCAAACCAGAAAACATCATGCTGGTGGATCCATCTAGACAACCAT ACAGAGTCAAGGTCATCGACTTTGGTTCAGCCAGCCACGTCTCCAAGGCTGTGTGCTCCACCTACTTGCAGTCCA GATATTACAGGGCCCCTGAGATCATCCTTGGTTTACCATTTTGTGAGGCAATTGACATGTGGTCCCTGGGCTGTG TTATTGCAGAATTGTTCCTGGGTTGGCCGTTATATCCAGGAGCTTCGGAGTATGATCAGATTCGGTATATTTCAC AAACACAGGGTTTGCCTGCTGAATATTTATTAAGCGCCGGGACAAAGACAACTAGGTTTTTCAACCGTGACACGG ACTCACCATATCCTTTGTGGAGACTGAAGACACCAGATGACCATGAAGCAGAGACAGGGATTAAGTCAAAAGAAG CAAGAAAGTACATTTTCAACTGTTTAGATGATATGGCCCAGGTGAACATGACGACAGATTTGGAAGGGAGCGACA TGTTGGTAGAAAAGGCTGACCGGCGGGAGTTCATTGACCTGTTGAAGAAGATGCTGACCATTGATGCTGACAAGA GAATCACTCCAATCGAAACCCTGAACCATCCCTTTGTCACCATGACACACTTACTCGATTTTCCCCACAGCACAC AAACCCCTTTCATCACGCACGTGGCCCCCAGCACGTCCACCCAACCTGACCATGACCTTTAACAACCAGCTGACCA CTGTCCACAACCAGCCCTCAGCGGCATCCATGGCTGCAGTGGCCCAGCGGAGCATGCCCCTGCAGACAGGAACAG CCCAGATTTGTGCCCGGCCTGACCCGTTCCAGCAAGCTCTCATCGTGTGCCCCCCGGCTTCCAAGGCTTGCAGG CCTCTCCCTCTAAGCACGCTGGCTACTCGGTGCGAATGGAAAATGCAGTTCCCATCGTCACTCAAGCCCCAGGAG CTCAGCCTCTTCAGATCCAACCAGGTCTGCTTGCCCAGCAGGCTTGGCCAAGTGGGACCCAGCAGATCCTGCTTC CCCCAGCATGGCAGCAACTGACTGGAGTGGCCACCCACACATCAGTGCAGCATGCCACCGTGATTCCCGAGACCA TGGCAGGCACCCAGCAGCTGGCGGACTGGAGAAATACGCATGCTCACGGAAGCCATTATAATCCCATCATGCAGC AGCCTGCACTATTGACCGGTCATGTGACCCTTCCAGCAGCACAGCCCTTAAATGTGGGTGTGGCCCACGTGATGC GGCAGCAGCCAACCAGCACCACCTCCTCCCGGAAGAGTAAGCAGCACCAGTCATCTGTGAGAAATGTCTCCACCT GTGAGGTGTCCTCCTCTCAGGCCATCAGCTCCCCACAGCGATCCAAGCGTGTCAAGGAGAACACACCTCCCCGCT CCCGGGAACGGCAGCAGACAATTGTCATTCCCGACACTCCCAGCCCCACGGTCAGCGTCATCACCATCAGCA GCTGTGTCACAGTCCACGACTCCCCCTACTCCGACTCCTCCAGCAACACCAGCCCCTACTCCGTGCAGCAGCGTG CTGGGCACAACAATGCCAATGCCTTTGACACCAAGGGGAGCCTGGAGAATCACTGCACGGGGAACCCCCGAACCA TCATCGTGCCACCCCTGAAAACCCAGGCCAGCGAAGTATTGGTGGAGTGTGATAGCCTGGTGCCAGTCAACACCA GTCACCACTCGTCCTCCTACAAGTCCAAGTCCTCCAGCAACGTGACCTCCACCAGCGGTCACTCTTCAGGGAGCT CATCTGGAGCCATCACCTACCGGCAGCAGCGGCCCGGGCCCCACTTCCAGCAGCAGCAGCCACTCAATCTCAGCC AGGCTCAGCAGCACATCACCACGGACCGCACTGGGAGCCACCGAAGGCAGCAGGCCTACATCACTCCCACCATGG CCCAGGCTCCGTACTCCTTCCCGCACAACAGCCCCAGCCACGGCACTGTGCACCCGCATCTGGCTGCAGCCGCTG CCGCTGCCCACCTCCCCACCCAGCCCCACCTCTACACCTACACTGCGCCGGCGGCCCTGGGCTCCACCGGCACCG ACCAGGTCCCCGTGAGCATGGGCCCCCGGGTCCTGCCCTCGCCCACCATCCACCCGAGTCAGTATCCAGCCCAAT

#### 1765/2682 FIGURE 1601B

TTGCCCACCAGACCTACATCAGCGCCTCGCCAGCCTCCACCGTCTACACTGGATACCCACTGAGCCCCGCCAAGG TGCAAACGGGGCAGGTGCGGGGGGGGGGGGGGCAGAGGGCAGGGGGACGGGGTCGGGACACCAGTGAAACTTGAA TGGTTTTTATTTAAAAAAGGAAAAGGGAAAAAAAAAAAGGTCAATAACAAAAAACCCAGCTCAAGAACCCATTCT ACGCCAAACTGGAAAGGAGAGAGAGACAGGAAGATTCCAGAAACGGGGGGCCCCAGTTTTTGAAGAACTTTA TGAACTTTTCAAAGATTATTTTCATATGGCAGCAAGTGATACGGAAGACTGCTGTCAGGGACACCTGATATGGAA ATCARATAGATTTTTAATTAATTGAACATAAGATTTAGGGATTTTTCCAGAACTCGAAAGGGTCAACAGCCCTCC AGAATGTCGGGCTGCAGCCTGAGGAGGCTGATGTTTGGAGCTGGTGTGGGGATTGGCGAAGCCCAGTCCGGGCTCC GCACTCTGGATAAATCCCTAAGCAACGTTGTTTCTCAAATGTCATTAATAATGTGTGTTTGCAAACTTTAGGTTTT TTTCTTTTCTGAAAATGTATTTTCTCTTTGAATCCACCCCTAGTCGCGTAGCGTAGCGGTAGCGGTCGTCACAGA CACCCTAGTAGAATGTAGCACTCAGCACCCTTGTCTCCTACCTTGTGTTCAACTCCAATGATACCAATAGAATAT TCCTCAATGTAATTGCACAAAAAAAAGCGATATAACATAGGCATGTAACCAATGTGGCGGTGCAGGTGTGCGGGT CTTGACACTGCATCCTTCCCTAGTGCCTTACCGAGCGACAGACGCGGCGTGAGGGTTTACTTCCACTGGTAC  ${\tt TCCAAGAAACTGAGGCTAGTCAGACACAATCTCAGCTCTTCTGTTGTGCTGTTGTAACAGTTTACGCTGGCCTTT}$ TTTTTTTTTTTTTTTTTTTTTTTAAAATGTTAATGCCCGTTGTCTTTCCTGGGCTGTTTGCTAGCGGAAGGAT TGCGTCTGGAGATGGGGACGGCGGGAGTTGAGTTGTGCCAGTAGTTGAATTTGTGGGCGGAGGCCCAGA GAGACTCCCCACCCTTCACCCCTGCCCCACTCTGTCCCCAGTTCCGCCATTTGTGAGGCCAGAGGTTTCCGGACT GCTCTCAGCCTCGCCCGGGGCTCCACTCTCTCCTCCGGCTCCCTGGGCTGTTTTGCTCTAACGATCTTGCCAGAT  $\tt CCCTCCCTCTGTAGACAACCACCAACCTCTGTTTGCTGTTGAATTCTCTCCTCACATTACCCAGGTCTGCTCAAG$ ACATGATTTTGGTTTTGGTTTCTGAGGGTTCTAGTGGGCAGAAGGTTGGAGGGACACTTATGAGGGTGGCCGGGG GTCTGACGCTGCACTTTGGAAAAACTCACACAGTTGAATTTCCAAAGAAATCTGCCCTTTTGCCCTCTTTGCACCT TTGATACATTCTGGAAGTTTTCTCAGGCTTTGGACACTTCTGGGGATGGAGGTGTGGAGAAGTGGGGAGTTCCCT CTCTTCATAGTAAATAACTCTGAAATATGTGAATGTGAATGGCAGGAGAATCTGGCCAAGGATGGGGCCGAAAAG TCTTTCCCGAGTCAGCGGCCCCATCCTCATCCTCCCTTCCCTTACTTCCTCACTGTGCAGTCTCCCTCAAGGATC TACTGTGAAAGGTGTGTTTGTAGTGATATCCAACCTAACTCAGTAACGAAGTCGTTACTTAGCTCTTAGCTGTGA CTTAGTCCAGGCCTCAGCGAGAAGGAAGGACACCATGACTGCTCCATGCTGGGCACAGCCGGGCAGTCTTGCCAA GTGCCTGCTGGAGGCTGTGCCGGCAAGAGGCCTGCAGCAAGGAGATTCCCTTCCCTCGGGCCATTATCAATACTG TCTTTATCTGGAGGTGGGGAAGCGCAGCCCTCTGAGACAGCAGGACAATGGTCAGTTCAGAGAGGGTGAGGGCAG ATTAGGGACTTTTTGGCAGCCAGATGGCAGCAATAGCCCATTAGGTCTCATCCCGAGTTCCAAGTCTTGGCTGCA AATGAGCCTCAGTTCGCCTTACTGGAGAGCACCCCCAGATTCCTGGGCACAGTTCATTTCCAGCCCTTTCTAGAT GAGGCTACTTACTCTTTCACCTGACATTTTCTTTCCTTTATTCTTCCAGATCAGGAATGAAATTTCCATGCTGC TCATAAAGATAATATTATTGTACTAATTATTTTTATTACCATTGTAATTATGATCATTATGTTGATATTTTAGTC AGGGTTTTAAATGCACATTTATTCCAAGTATCTTTGTGTTTTCTCTTTTAATATTTTAAACTTATTCTCTCTGTGAG AAGAATCAAAGCCTTGATTGGGCTTCTGACAACATGGTCACCATCAAGGTTGTCATTTTCTAGATCCCAGAGGCC TCTCTCCCACATCCTCAGAGCTCTCCTGTGCTTCTGAAATCTGTTAACTAAATCTTTGGCTTGCCTCTGGTATTT

#### 1766/2682 FIGURE 1601C

GGGCGTGGCTTAGGTTCTTCAATGCAGGGACATTTGCCCCCTCCCAGAAGCTGCTGGGCACAGTGAGGTGGCGTA AGAGTGACTGGCAGGTGGTACCTTCCCCAGGAAATTTCACCACACCCAGTTCCTCAGCCTGCCCCCTCCCCC CTGAACAAAGCTGGGCGGCTGCTCAGGCATCACAGGCTGCACCCCCTCTGAAAGCATCCCCACTGGGCTCCGGCC ACATCTTCAGTGCACTGTGTGTGCGCTGGGTGCTCACACGCTGTCCCCAGACCCACAAAGTGCTAGGCCCCA CCACATCAGAAGCCCCAAGAGAAGCTCCCTGCAGGAGAGGCCAGCTCCCTGGATGCCCAATTGCATACCTGGCCG AATCTGCCATTGAGTCACCTTAGCAAATAGGCTGCTGTCACTAGGACCAAGCTCTCAAGCAGAGGGATGCCAACC GACATTGTTCAGAGGAAGAGGGGAAGATTTGAAATGTCAGGTCACGGAGGAGTGTTTAACTGGAGCCTGGTGAAC CGCAGGGCAATTTGCTTCTGCTCACTGGGTTCTGACTGGCCCGTCTGGACGTGGGCCCCCATGTCTCTGTGCTTA GGGCCTCTTCATGATGTTTTGGATGTTTCCAAGGGAAGTGGGTGAGCAGATCAAGGGGTGGGAGAGTCGAGGCTT GATTCCAGTTAATACTGTGAAGTGGAGCGTGCGGTCAGTGGAATTCAGAGGAAAAAGAAGGGTTGGAGCAAAGCG GCATTCATCTCCTGGACTGTTAGCCTTTCTAGTCTTCCTGGTGGCTGAGGTGTTCACGGGCTGGGGGAGCCAGCT GACCTTTGTCCTCTTCAACCTAGAAGACTCAGCCCGCCCAGACACCTGTGAGACGGATGGACATCAGGAAG GGAGGGAGATGAGGAGGCTTCGGGAAGTATTACTGATGGCTCATGGTTGAGAGAGCGACGTGGGGACCCAGC TCGCCCCAGCTTTTGTCCCAGGTTCTCTTTGTCTGATGCTGAGGGCAGGGTGGGGTGTGGGACCACCACTCTTGT TGGCCTGTCAAGTAGACCCTAGGACAGAAAATGGAAAGGAAATGGCTCGGTGCTCTCAACTAGCAGAGAGA  ${\tt TTGAGGAGGGTAAGGGTTCCTTCTGCAGGCCAGCCTGGGACTCCACAGCGCCAGCAGGAGTGACTTGGCCACAA}$ GACATTCCAGCCCCAGGGACTTTGCAGGCTTCATTCCCTGTGTGTTTTTCCTTCTGGTGTGTTTTACAGACT TTTCTTTAGCCAAAGAACCCTTCTCAAAGACGCCTCCAGAAATGGACAAAATGGCCTTCCCTTCGTTCCTTTCCA NNNTGCATTTATTTCAAAACTGTGCTATTCTTTTAAGAGGAGTGGAGGTGACCCCTTCGATGCTGCTGCTATCGG GAGACAAGGTGCCATACCAATACGTGGGCTTGACTAATCCCAGGCCACCATGGGAGAGAGCAAAGCAGGGCTGCC AGGAGTTCAGTTGCATCAAGGGCGTAGAGCACGCGGGGGCTCGGAATAGCAGTACTTTTCCACTTTGATG CCTTAGAACTCTCACTTCTCACCACAGACCAGACTCAGTAAAATCTCAGGCCACTAGAGAATGGAAGGCGGT GAAACAGGATTTAAATGCAAAAAAAACCTATTGGAGGCTTTTTGGCACCGTGGCTCACTAGAGGGACCCAGCATAG TAGAGGTTTCTCTTGTTGCAGCTTCTGAAAAGTTCAAAAAAGAACTCCAGGCCGTTCTTCCCTCAAACCCAGTGA GAGTTTGCAGAGAGTGCCCCTGCAGGGCTCCCGTCCCAGAACACCAGCACCAGAGAGGGTCTTCCCGATGCCC TATTTGTTAAAATTTTGCAATATCTCTCAAGTAAATAATAGCCAACATTTGTTGAATGCTTTCATGACTCCCGGGC TCCCCAAGGTTCCCTTTTTTGTTCATCAGGCCCTTCCTGAGATGTGATTTTTAATCTTTTTAACTTTTTTAATTA ATAGCAATGCGTGGCCTCATATTTCTATGAACCATTTAGTGATACTCCCGCTTCCTGCATGCCACACTGTGCT GGGAATTGCTCATGGGTTGTCCTGTTTCATCTTCTCCGTAGCCCTGTGAGATCGGCAATATTAGTCCCCCTACAG TGTGCCATCCCATGCACCGTGGGACTCAGCTAAAGGACTGTGCAAAGAGGGGGGCTCCTGAGTTGGATTTAGGCAA AAGGGGCAGAATTCGTTTGATTTTTAGAGAAAATCTCTGGAGAGTTTCTTTTGATTCATAGAATTCCTTTTAGAT TTTTCTTCTTTAAAAAATAAGTTTTTCTTGCTTATAGTTAATTCTAGAAAGGCAATACTAAAGGTATATATTTTT TTCAAAATGCTATTTTTTACTGCACTTGATAATTATCCTGACAGCTCTGATCTCTGTAATAGATTCACTCTTCAG

#### 1767/2682 FIGURE 1601D

CTCTGGGCAGAACCAGAGGCAGGGTTCACACCAAATTTGTAAATACCATATGTGGGTCTGGTGTCCAGGAACTTT AGGAACAAAAGAATGTTTTCTTTTGAGATACTCTTCTCAAAGAAATAGCAACAATTGTATAAACAGGAAAACCAG CCAGCTTTCATGATAAAAGGAAGGCGTGTCTCTTGCCCTGGTATGAGATTAACAGAAATACAGATGCATTTTTAT TTTGATTGAAAGATGGTGAGAATGTAGAAATGCTTAGGACTAGATTTTTAATTTTTTAAAATAACTATTATCATT TATTATGAAATATTTGTTCAGTTGTTTTGAGTGGGTTTCTTGTCCCTTTTTTCATTTAAAACCTTCTTTGTTGAC TGGCTCCAGGCTTGTTTGCCTAAATTCTTAGGTAGTTTACACAAGTTCTAGAATCTTTTAGAACTTTAACTCCAT TGGAAGCAAACCTAACTAATCGGAGTTTGAGATCCTGGTTTGGTTTCAATAGGTATTCTGGAATTCTGGCAGAACA CCTAAAGATTTTTTTTTTTTTAGAAGGTTTTAGATACATTATCTTACACAAACTGTGACCTAATGGCAATAATT ACCTCAAATGTGGGCATTCATCCTGGTTTTAGCCTTTTTTGAAATCATGTAGCCAGCTTGATCTTGGAATTTAAA GACTATGAÁTTCTCTGTGGGCTGAAAATAATGATTACTTCATACCCCCGGTCATCGTTGCTTAAGTGAATTCTGA AAATAGCTCATCTTTACAACAAAAATTAAACCAAGGAAGAGATTATTCTTTGTGTGTTGTACTCAAATGCGATGT TCAAATGCACATGTTAAGTATATGTTTTTAGCTACTGTAAAATGCTGTTAGCCTTCTAAGCTATCAAAACAGT CACATTTTAAATGAGTAAACTAAACAATTGACTGTGGATACTTAAGCATATTTCTGGCTACGTTTTATAGTTAAA GTGTTTTATAGTTTACATTTAGACTGGTACTTTTTAAAGAAAAGTTCTGTTTATAACTGACATCCGCAAACCCCA GTGAATGCCTCTTAGTTGGAGGTTGTGTCTCCCCCAAGGCAAGTGTGTTGTCCCAGACTCTTCTGTAGTCCAGCA TGCGCACTTCCCTCTGGATTATTACTTTCCACGTGAACTCAAGAGAACATGAAAGGCAATCCAGATGGAGGGAAA - AGGTGTGAGTCCGCAGCCCGGGCCAGATGCGAAGGTCTCATGCGTGTCGTCTAAACACTTGTCTTCAAGGCCTTC TCTCTGACATCTTGGAAGAGTCATTGAGAACAGATAACCTGGTTCATTGATTTTTGTCTTGATTTTGAATATTTAA CTTATTAATAGATCCACTGATTTCCAGGCACCAGGCAGTAGAAGACTGGGATTCAGGTGACCATGAAGGCACA GCTGCTACTTCTGGGCCGGGGTGATATTTTGATCAGCGTTTTGTAGGGGAGGACCATATACCCCTATTCCCATG GTCGCTGGCTGGGTTTTCCATATATCTGCTGTCATTTATTCGTTTTCCCCTTAAAAGCAAAATCAATGTAAAAGG CTATGTTTACGTTTTACTCATTGTCCAGCTTAGACTCAAAGTCTAGTTCGGTGGGAGGGGGGACCTTAGCATCCTC TCAGAGATGGTCAGGGCTGAGCAGGAGGAGGCAGAGACAGAGGGGCAGCTCAGCCTGGTCCATTGAGACCCACTC TAAACAGACATCATATTTGGAACAAGAAGATGCTTCGAGACAGGAATGGGCCCCACTGTCATGCAGAAACAGACT GGGGGAATGGCAGTTTCCCTGAGTCTTGGTTTCTTTTATGTTTTCTCTTGTGCCACCACCAAACTGCAGAGGACC TGCTGTGACCTAAAGGGCATTCCTTTAGCAGATAAGACCTTGAAAAACTGCAAAACACCTGGGACCAGGGAGCTTT TAAAAAATACAAAAAAATACCACATTTGCTTTTTCCCTGTGAACTGTATTGACAGCGTGTTCTTAGGACAGTCTT TTGGTGGAAATGTTACTGTAAAATAGTTTTCATCTCACCCCTCCTAATCATACTCCCACTTTCCTGTTTGTGTGG TGGTGTTGCTGTTTTTCCTTTACATGAATTAACCAAATGAATTTTGTGTCATTGTTTTTTGGGGCTTATATTTTT CCCGGGGCCACCTCTGCCTCCACCCTGCTGTCACCACTGCCCTGGGCCAAGGCACCCAGGACTCCCAGAAAGCGC GAGAGCCAGCAAGAAGGCCCCACTCAGCCTTGAGACTGGTGGTCACACCTCCCTGTCAGAGTCGCCTGCTGGGCT GAAGGGGCAATGGATTGTCATTGTTGAAATTGTTTGGCTCAGGTTATAAGGAGGAACTTGGGAAGTAGAAAGTGA CTTGACCATGTGCATCCTTGGTAGCTTCCTGTAACTAACAAATGGAACAGAGAGCACCCCCGCCCCGCCCCAC CTGCTCACTTCAAGCTTCTTCCATGGACTTTCCAGGGCACAGTCATCTCTAGCCCCCAAATCATCTCTTCATCCT CTGTGTGTGCATTTTTTTAACCAAATGAAATAGACAAGAAAGTCATACTTTGGGGCAGCAGAATTTCTAATTTAG TAGAATCACTGTATAGAGATAGATGTTGATATATGTTTTGTGTATATATATCAAACCAAATTGGATAGGAGAAG TATAGCTTTACAGATGAGGAGAAGGAGCTCTTTAGAGGTCGGAGTCAAGACTGGTGTCTTGGACGTGCATGGGCT GTGTCCCAGGCCACTCCGCACACATGGGGCTGAGGCGTGGCGCCCGGGCCCTTGTCATCCACCTCACCACGGCAGA GCCAGCAGGCCCTGTAGGGTGCTGCTGCTGTCTCACTGGGTCCCAGCTTCAAGCGCATCAGTGGGTGACGGGGGC AACAAATCAGAGTGACTGGAAGTTTCCATCCCGTTTTGCTTTTGACCACGTGTACTGAGCTGCAGCCTCTGATACT CTGTCACGTTTCCAAAAATGGTATCCATTAGGATAGAAAGAGAATGGATCTGCAGAAATGTTTACCTTTCAACTG CTCATGAATTCAGGACACTGGATAGAAAGACTCACTCCCCAAAATGAGAACAGGGAAGAGGAGACCCGGCGACAC TAAGTCACCAGGTCCAAGGAACGTGGCTCCCTCCCCAGGTCATCTCACCTAGATCTTTCTCTCCCAGGTCATCT CAGCTCAATCTCAATAACCCTATGAAAGCCCTGGTCTGTTGTGTTCCTTCACCGTACGGTTTCTGTAATAAAAAG

## 1768/2682 FIGURE 1601E

## 1769/2682 FIGURE 1602

MAPVYEGMASHVQVFSPHTLQSSAFCSVKKLKIEPSSNWDMTGYGSHSKVYSQSKNIPLSQPATTTVSTSLPVPN PSLPYEQTIVFPGSTGHIVVTSASSTSVTGQVLGGPHNLMRRSTVSLLDTYQKCGLKRKSEEIENTSSVQIIEEH PPMIONNASGATVATATTSTATSKNSGSNSEGDYOLVOHEVLCSMTNTYEVLEFLGRGTFGOVVKCWKRGTNEIV AIKILKNHPSYARQGQIEVSILARLSTESADDYNFVRAYECFQHKNHTCLVFEMLEQNLYDFLKQNKFSPLPLKY IRPVLQQVATALMKLKSLGLIHADLKPENIMLVDPSRQPYRVKVIDFGSASHVSKAVCSTYLQSRYYRAPEIILG LPFCEAIDMWSLGCVIAELFLGWPLYPGASEYDQIRYISQTQGLPAEYLLSAGTKTTRFFNRDTDSPYPLWRLKT PDDHEAETGIKSKEARKYIFNCLDDMAQVNMTTDLEGSDMLVEKADRREFIDLLKKMLTIDADKRITPIETLNHP FVTMTHLLDFPHSTHVKSCFQNMEICKRRVNMYDTVNQSKTPFITHVAPSTSTNLTMTFNNQLTTVHNQPSAASM AAVAQRSMPLQTGTAQICARPDPFQQALIVCPPGFQGLQASPSKHAGYSVRMENAVPIVTQAPGAQPLQIQPGLL AQQAWPSGTQQILLPPAWQQLTGVATHTSVQHATVIPETMAGTQQLADWRNTHAHGSHYNPIMQQPALLTGHVTL PAAQPLNVGVAHVMRQQPTSTTSSRKSKQHQSSVRNVSTCEVSSSQAISSPQRSKRVKENTPPRCAMVHSSPACS TSVTCGWGDVASSTTRERQRQTIVIPDTPSPTVSVITISSDTDEEEEQKHAPTSTVSKQRKNVISCVTVHDSPYS DSSSNTSPYSVQQRAGHNNANAFDTKGSLENHCTGNPRTIIVPPLKTQASEVLVECDSLVPVNTSHHSSSYKSKS  ${\tt SSNVTSTSGHSSGSSSGAITYRQQRPGPHFQQQQPLNLSQAQQHITTDRTGSHRRQQAYITPTMAQAPYSFPHNS}$ PSHGTVHPHLAAAAAAHLPTQPHLYTYTAPAALGSTGTVAHLVASQGSARHTVQHTAYPASIVHQVPVSMGPRV LPSPTIHPSQYPAQFAHQTYISASPASTVYTGYPLSPAKVNQYPYI

#### 1770/2682 FIGURE 1603A

GTATATGTTTCGTGAGTAATTTTTAAAAAATAAAACAGGTTAATAAGAAGATCCATTCCTTTGCATGTGATTGTT ATAACATTCTTTCCCAGGGAGTTCAATTTCAGCAACCTCAGAAATCCATACTTGATATTAGGAAACTGTAAATGT AACACCTGAAATTATTATGTTCACTATTCTACATGAACCTTATGGAAATTCATGATTTATGTCTTTGTTTTCTT TTTCCAAGTATATGCAGGACTCCCCAACCTTGATTTTATAATGGTGACTGCATTTTGTAGGTGGAATCATTTCTA CCGAAATCATTTTGAAACACAAGAATATTGATCAGTACTGTTTCACTCTGATTTAGTAAATCAGAAAGCCTCCCC CTACCCCCAGCCCCACTTTCACATACCTTCTGGGAGGTGCCTCAGTATAGACTTGGTATCTGTGAAGGACTGAG TTCATGAATATGCACAGAAGCACTTAAACCATGCCTCTTATTTCTATAATATCTGAAAATGGCTTCATAAAAGTT AAGTCAGGAGAACACTGTTTACATGACACTTCTTAACTCATTTTTAATGTTTATTTTTAATTTCAAAAACTTGTT GCCTATTTGGTTTTCAGTACTGCATAACACTGACTTTCTTAAATTAGTCATAGTTGCAATAATTTACTTAAATTT GGTAATGTCACATTTGGGTTGGGGTTTCAGTGGGAATAGTAACTTGCCGCTAGTGAGAAATGGCATTGAATACTA AAGACTCAATATGAACAGGCTTTATAGACCCTTAGAGAAACTGTTGCCTTAATGTTTGGTGCAATTTCTAGTAGT GCATAAGTGAATTTAGTCTTATGATAAGTAACTTTGAGCTGTTTTTTAGCTTAGTAAGAATTGTGGAAACCACATG TTTATTGTGCCCATCATTTTACACAAAGAAAGAGGGATTATATTATTTCTTCTAAGGAAGTAGGAGTTTTCTTCC TTGATGTATTTTGAAAACAAAATTGCAATAAAGGATGAGCTTCCATCGGTGTGTATGGTATACCAGATACAGATG GTTGCAAGGAAACCTTTTCCCCCACTAGAATAGTCTATTAGTAACTGCTAAGTCCTAGCTTGCATTTTTGAAAAT GCCTTTCTGCATGTTAGCACCCAGACTTTCCTTTGTCATATTCCTTTATAGCTACAACTTAACTGTAGCTTATCA GAGAAGCTCTGTAGTCCTACACTGAAGTGTGTTCCCTTGGCTGTTCATATGGGGCTTGGGTTTGGTTGAACTTCCA AATGGAATGCTGTGGAAAGCATATCTATATCTTAAAAAAACACTCAGACAGGAGTTAAGGACAGCTTTAATAATTT TAACAAGTGCCCATTTAGGTTTGAAGAATCCAGAATGTTTTACCTTTGACTTTATGAGTTATAGAAGCTTGGCTT TGCTCTAGGTTTCATGTTCCCAAATGAGCCATCTGTCAGTATATTCACTTAATTCTTACTAATTTCAGTTTCCTG TAAAGGAAACAACTTACATATTGATGCTTAAATCCAGAAAGTGTAAAAGGTTTTCTTAAACTGTTAAAATATAGT GTCTGATATAAAGGATGTAAGTTACTCAGCTTTCTGCTCCCTAAGCCAAACAGTGTTTGTCTTCAGTGTGAAATT TAACTGTAAAAACTACTTGTAATGTCAAGAGATTATAGATCATATTATTAATAAAATGGACCTGGGTCTAATATT TTTTTTTCTTCAAAGGGAGTGTGAAGCTGTTTATTCTTTTATTTGCATATGAGTTTTTCTTTTAGTTTTAGTTTT GCAAAATCAAGTGCAACCTACTTGTGACTAAATCTCTTTGGATTTATAGCTGAGGATATTGTTAGCTAGGTTTTG TCAATCCCTAATCATTTTTTAAAATCAATGCTGTATTCCCAGGAGGCTTTGAGACCCCTATGAACCTGAAGCACT ATCAGAGTAAGGACCACTGACATATAGAACACTCAAGCCAAAGAACCATCACAGAATTTAGTAACTTTAGTTCTG GACTCTGAATTCCAAATCTGAGTGAGAAAAGAAAAGGAAAAAAATCTGTTTCATGGTGGATTTCTAAGCAACATAT ATACATGTTTTTAAGACAACCTTTTGTTGGCAGTGTTTTTCCTGAACACCATATGCACCCTAGGAAACGTTTTTC  $\verb|CTTTAATCTTGTTCACATATCAGAAAAGGACATGAAATGCTCATACTGGCATACAAGTTTCTATAAGTAGTTATT| \\$ AACATGTCAGGAATTAAGCAGTTATATGTGGAAACACTGGTAATTCTTTCCACAGTGTTGTTTTGGATAATCTGT TCTAGTATATTTAACTAATTGTATGGTGGACCTGTACTCTGATACACATCGAATCAGTCAATGGGATTTGTATGT GCTTTTCCTTCCTACATTTCCATTCCTACTGCCCCAACCTAGTAGCCCTAAGTTGTGGCTTGGTGGGTTTGGCAC TGAGCCTCAAGACACTCACTACATTCTTTCTGGATGTTTGCTCACAGGCTCCCTGAGGAGCAGAACCTGTGGAGC TGGGGAGTGCGGGTGGTTTCTATTCCTAATATTGTGTGTCAGTCCTTTTTCGTGTGATGGTGCCTTCAGAATAAC GAATATTTCTGTTCTGGACAATGATTAAATCTTATGAGAAATATATGTAGGTTATATTAATTCTTGTCCATTTTT GCTAAGCCTGTGAAATACTTTGGCTCTGATACAACTTAACTTGAATAATATCTTATCCTGAGTCTTCCTCCAAGG ATACTGCTGTAACTAATGCATACAAACAATTCTTCTCTTTTACATTTATAGTCTAAAAGGGGATATGCAGTGGGAA GGAAAATTCCTGAGAGATTCCAGCATAGCTTTGTCAATTCCGACTGAGCCATACTGTTTTCCACAAGGGCTCAAC

## 1771/2682 FIGURE 1603B

1772/2682 FIGURE 1604

MASS

#### 1773/2682 FIGURE 1605A

AGCGGCCGCCAACGCCCGGGACTGGAGCCCTGACATTGCTGCGCTCGGGGGGGCTCCAGGCAGCCCGTATCGGG GCCTTTATTTCTCGTCGGCGCGCCCTGCACCGCGCCTCGCAAAGCCAAACACCCAGAGCACCCTAGAAGGTTTAA CTAAAAGA<u>ATG</u>CTCATGTTTGACCCAGTTCCTGTCAAGCAAGAGGCCATGGACCCTGTCTCAGTGTCATACCCAT CTAATTACATGGAATCCATGAAGCCTAACAAGTATGGGGTCATCTACTCCACACCATTGCCTGAGAAGTTCTTTC AGACCCCAGAAGGTCTGTCGCACGGAATACAGATGGAGCCAGTGGACCTCACGGTGAACAAGCGGAGTTCACCCC CTTCGGCTGGGAATTCGCCCTCCTCTGAAGTTCCCGTCCTCACACCGGAGAGCCTCGCCTGGGTTGAGCATGC CTTCTTCCAGCCCACCGATAAAAAAATACTCACCCCTTCTCCAGGCGTGCAGCCCTTCGGCGTGCCGCTGTCCA TGCCACCAGTGATGGCAGCTGCCCTCTCGCGGCATGGAATACGGAGCCCGGGGATCCTGCCCGTCATCCAGCCGG TGGTGGTGCAGCCCGTCCCCTTTATGTACACAAGTCACCTCCAGCAGCCTCTCATGGTCTCCTTATCGGAGGAGA TGGAAAATTCCAGTAGTAGCATGCAAGTACCTGTAATTGAATCATATGAGAAGCCTATATCACAGAAAAAATTA AAATAGAACCTGGGATCGAACCACAGAGGACAGATTATTATCCTGAAGAAATGTCACCCCCCTTAATGAACTCAG TGTCCCCCCGCAAGCATTGTTGCAAGAGAATCACCCTTCGGTCATCGTGCAGCCTGGGAAGAGACCTTTACCTG AAAGCTCCCACTTGAAAGCACACAGAAGAACACACAGGAGAAAAACCCTACAAATGTACATGGGAAGGGTGCA CATGGAAGTTTGCTCGGTCTGATGAACTAACAAGACATTTCCGAAAACATACTGGAATCAAACCTTTCCAGTGCC CGGACTGTGACCGCAGCTTCTCCCGTTCTGACCATCTTGCCCTCCATAGGAAACGCCACATGCTAGTCTGATTGC TTTTTACATGTACATTTTAATTTGATTCAGCTGGTCTGAATCTCTGAATTTATATCATCCAAAACTTCCATATGG TTTTTCTGGGGATGCTAAGCAAACCCTTCTTACAGATACGTTTAATGTAATAAGAACAAGGGAACATGTAAACTA ACATAACCAATTGTCAGTTCTCCATGTATTCCTCAAAAGAATGTCAGAGTAAATGTATTAGAAATACAGTATCCA GACTGCTAGTCCTTGCCAGAGACATTCTTACCTCTGCCCTGTGATAATATTTTATGCTTGACAGTGAAAACAAGT GTGGCCCCTTGCACCGGTTAGCTAGAAGTACAGCCAGATTTCAAGCTAGTGCAGTCACCTCTTCCGTCATTCTTC ACAAATCTTGTCAACCTGGATCTTAGACTTCATCTGAATCGAGTTCTTTGCCCTCCTTTGTGCCTGCAGCTCATA AGGGTGCTGTGTTTTCATAGCATGGAGTCGGAGGAGGAGGGCCATTTAGCAGGGGGAGCAGAAGAGGCAATTCCTC CTGGGCTAGGGGTTGTCAATGAGGTTTCAACATTTTGTTAGCTGTGCAGCATTCCCAGAGCTTCAGTCTCTGT GCATACTCAGCTTTGTAGAACCATGCTGCAAAGCCATATACCGATGGGGTTATCCATGCAACTATCTCCATTCCT ACAATGTCCTTAATATGAGATCATCAAACATTGATAGTAGGGACTCCATGGAATATTTGCCCAGTAATGGTAAGA AATCTTTCGGGTAAGAGTATGGATGGTTCTTCTTTTACCCAATCTGCTTATAGCTTTTTTTGTAAACAGGGAAAT GTTGAGTGGTACTTGTATTCCCTTATCAAATTAATCACATAGCTTTTATACAGAAACTCTTCCTGTGTGAGCTGT TAAGGTGCCAAATTGGCTGTCATTTGTATTCATGACACATACCATAAAGCATCTGCTAATGCTTTAATGGATTGA TTCAATTAAGACCTGAGTGACACTATTTGTAAATATAACTAGTTGTGAAGCACACATACCTTTATTTTGGGAATT TATGAGAAAATATAGAAAACCACAGATCAGGGATTCATATATGTAGCTCAAAAATTCCCAAAAGTTTACTGTTAG AGTTGGCAATTTCCTATCACTATTTCAGTGTCAGAACAAACTGAAAATAATGGCTCGTGTTTATGTTGAAGATAA ATAGCACCATTATTGGGGGAAGTTATTCAAAAGCAGGCTTTTGAGCACCATAGTCTAAATGCCAATAAAAATAAT TCATACATAGAAATGTCATTGGTCCTGAATTTGAAGAAAGTGAGCAACAGTAGTTAAATGTGGGTGCATATAACC AAATTCCCCTTCATCAAGAATGGAGGAGAAGAAGAAGAATGAAATCCTGAAGATTCATCCCAGCCGCAACTCAG GATCCAACACAACTTTAACTGGGAGGAATACATTGTTTGATCATTTTTAAAACATCTGTGAATGAGTGATTCCGG AGGCCTGTGAATTGTGTGGGGAGCTTGCTTTGATGGCACTGTGTTAATAAAAGTTGTAGGGACTGTGCACCTAAG AGGCTAAGAGGTCCCACTCATCCGCCCTGTGAACCAGCTGTAAAGAAATGTAGTTAAGAAATGCAAAGAAATGTG TTATCTTGGCACTTGGGTTTGATTTTCCTTTTTTAAAGCACTGCAAAACTTCTTTAGGATACTAAAACATCCTA TTTTTTGCAACTATGACATGAATTGAGTGATAAAATGGCTCTTTGAAAAGTAGATATTGTCTGTATTGTAAATGC TTAGTCATATTCATGGCAAAGTGTTCATTTCTTGAGATGGTTCTTTCACAACACACAGAATCAAGATGGAACGC AAGGAAAATCTTTTTGTTTTGACCGAGGTAACCAGTTTATGTGTGTTCCAATCCATAGAGAAGTGGGGGAAAGGG CGAGAAAGGATCAGATTGATCTGGGATCAGCTTTGAGCCTGAGTTCAGTGAATAGCCTCATGGGCATCTCATGGA ATTGATGCATTTGCTGTGGCATATTTAAATTTTGTTCAAAAGATTTGAAGCAAGACCTTGCAAAGACTCTTAACA

# FIGURE 1605B

TTACTGTTCAGCTTGCTTAGATTGTGTTAACAGTTCATTTAACAAAGATCCGTTTTAACTCTGAACAAAAGCAAC  ${\tt CCAGAGCGGCCATTCTCTATTCCCATGCTGGTCAATACGCTTTCATTACCAATTGGCCCTTACCAAACTTTTCTT}$ ATATATATTTGTATTTTACTATGATAGTTGAGAAATTTAGCCTCTTAGTCATTTTTAGCTGTTATTGTGGAAG ACCTCAAATACAAGATTAGATGCCCTTGAACATGTTTTAATGATGTGTGTCATGTTACTATCAATGGTGATTTCA GTTTCTTCAGTTGTTACCCAAGTGTCATCCTAGAGAAGTCAGAAGAATCAGAATCCATCGTATTTTAGAGTTATG TGAATCTACATCATAAATGGGCATTAACATTCTAAATTGCTTGGTTTGGAGAATGTGTTAGCAGCATAGCTATAT TCAACTAGGGAGATGCTAAATACACAGAAGTTTCAAGAGCCTTGGAACAGAATTACAGGGGAACTATATATGTAT ATGTATATTTATTAAACACCCATCTGCACTATCAGTATTGCACTAATGTGGAATTTGAAAGACTATTTTGCTGA TACTGTATATATGCGCATCATTCCTGATTAGATTGTTGTAAAGACAATCTGAAAGATCTAAGGTTTTAAAATAAT TTGGTTTGAAAATATACAGTTGTCTTGAAGGAATTGCTGTCATACATGAAGTTGCTCCGAGCTGTCTTTATTCTC TTCTTGGTCAAGGTTAACAATTGCTAAATGATCGCAAATTCACCTAAACAATACATTTACAAAGCCATCTTTACA TGCATTAAACGAGGGCTACAACAATATTGTTTTACAAATACTAGCACTTTTTTTCTGTTATGTACTTAGTGTTA GAGGGTCAAAATAATCTTTCTGCTTAGCATCTCTTAAACCATACCTGCAAATATAGCAGGATTATTACATTTACA GTACTTTAATACTTGTATAAACTATGCAGAAATTTTTAATAAAGTGTAATATTTTATAAGCTAATAAGACTGA TGTGAATGTTTAATGTACCTTCTGTTTCTACTCTGTAGTCCAATGGGAATTCAGTAATGACATTTTGTCATGT TTAATAAAACCATCAGAATATTAAAAAAAATCTATGTCGGGTGCGGAGAAAGAGGTAATGAAATGGCAGGAATTC GATATCAGC

## 1775/2682 FIGURE 1606

MLMFDPVPVKQEAMDPVSVSYPSNYMESMKPNKYGVIYSTPLPEKFFQTPEGLSHGIQMEPVDLTVNKRSSPPSA GNSPSSLKFPSSHRRASPGLSMPSSSPPIKKYSPPSPGVQPFGVPLSMPPVMAAALSRHGIRSPGILPVIQPVVV QPVPFMYTSHLQQPLMVSLSEEMENSSSSMQVPVIESYEKPISQKKIKIEPGIEPQRTDYYPEEMSPPLMNSVSP PQALLQENHPSVIVQPGKRPLPVESPDTQRKRRIHRCDYDGCNKVYTKSSHLKAHRRTHTGEKPYKCTWEGCTWK FARSDELTRHFRKHTGIKPFQCPDCDRSFSRSDHLALHRKRHMLV

# 1776/2682 FIGURE 1607

TTTCGCAGGCCGATCCCCACTCCAACCGTTCCCTCAGCAACCCCAGGGGTGTCAGACGGGGCACCCTCCCACTGT CTTCTCCAGCCAGCCTTAAAAACCCCAGAGACGCCAGCCTGGGAACGATCTCAGTATGGAATCTGAAGTCGCCTT GTCAGCACAGACACCTCTGGGGTCCCCAGAAGACCTGTGGCAAAGTTCTCTAAACCGAACCTGGAGAGGGGAAGG TTTTCAAGCAGGAACCACATAAATTCACCTAAAACTCACGCCTACACCCCTCTGTGATAAAAGATTTCTGTTTCT TCTGTTTGGAGAGACTGAATTTCTCTTCAAGACTACAGTACTGTATCTGTCAATCTGTGGAAA

## 1777/2682 FIGURE 1608

GAAGGGCCCCCGCCTCCCTAGGCTGGCAGAGGAAGCAGGTTAATTGGAAGGCCTGCCGATGGTCTTCATCAGGGG TGATTCCTAATGAAAAAATACGAAATATTGGAATCTCAGCTCACATTGATTCTGGGAAAACTACATTAACAGAAC GAGTCCTTTACTACACTGGCAGAATTGCAAAGATGCATGAGGTGAAAGGTAAAGATGGAGTTGGTGCTGTCATGG ATATTAACATTATAGATACTCCTGGGCATGTGGACTTCACAATAGAAGTGGAAAGGGCCCTGAGAGTGTTGGATG GTGCAGTCCTTGTTCTCTGTGCTGTTGGAGGGGTACAGTGCCAGACCATGACTGTCAATCGTCAGATGAAGCGCT TGAGGTCTAAACTAAATCATAATGCAGCGTTTATGCAGATACCCATGGGTTTGGAGGGTAATTTTAAAGGTATTG TAGATCTTATTGAGGAACGAGCCATCTATTTTGATGGAGACTTTGGTCAGATTGTTCGATATGGTGAGATTCCAG CTGAATTAAGGGCGGCGGCCACTGACCACCGGCAGGAGCTAATTGAATGTGTTGCCAATTCAGATGAACAGCTTG GTGAGATGTTTCTGGAAGAAAAAATCCCCTCGATTTCTGATTTAAAGCTAGCAATTCGAAGAGCTACTCTGAAAA GATCATTTACTCCTGTATTTTTGGGAAGCGCCTTGAAGAACAAAGGAGTTCAGCCTCTTTTAGATGCTGTTTTAG AATACCTCCCAAATCCATCTGAAGTCCAGAACTATGCTATTCTCAATAAAGAGATGACTCAAAAGAGAAAACCA TTGGACAATTAACTTATGTTCGCAGTTATCAGGGAGAGCTAAAGAAGGGTGACACCATCTATAACACAAGGACAA GAGACATCTGTGCATTGTTTGGCATTGACTGTGCTAGTGGAGACACATTCACAGACAAAGCCAACAGCGGCCTTT CTATGGAGTCAATTCATGTTCCTGATCCTGTCATTTCAATAGCAATGAAGCCTTCTAACAAGAACGATCTGGAAA AATTTTCAAAAGGTATTGGCAGGTTTACAAGAGAAGATCCCACATTTAAAGTATACTTTGACACTGAGAACAAAG AGACAGTTATATCTGGAATGGGAGAATTACACCTGGAAATCTATGCTCAGAGGCTGGAAAGAGAGTATGGCTGTC CTTGTATCACAGGAAAGCCAAAAGTTGCCTTTCGAGAGACCATTACTGCCCCTGTCCCGTTTGACTTTACACATA AAAAACAATCAGGTGGTGCAGGCCAGTATGGAAAAGTAATAGGTGTCCTGGAGCCTCTGGACCCAGAGGACTACA CTAAATTGGAATTTCAGATGAAACATTCGGATCAAATATTCCAAAGCAGTTTGTGCCTGCTGTAGAAAAGGGGGT TTTTAGATGCCTGCGAGAAGGGCCCTCTTTCTGGTCACAAGCTCTCTGGGCTCCGGTTTGTCCTGCAAGATGGAG CACACCACATGGTTGATTCTAATGAAATCTCTTTCATCCGAGCAGGAGAAGGTGCTCTTAAACAAGCCTTGGCAA ATGCAACATTATGTATTCTTGAACCTATTATGGCTGTGGAAGTTGTAGCTCCAAATGAATTTCAGGGACAAGTAA TTGCAGGAATTAACCGACGCCATGGGGTAATCACTGGGCAAGATGGAGTTGAGGACTATTTTACACTGTATGCAG ATGTCCCTCTAAATGATATGTTTGGTTATTCCACTGAACTTAGGTCATGCACAGAGGGAAAAGGGAGAATACACAA TGGAGTATAGCAGGTATCAGCCATGTTTACCATCCACACAAGAAGACGTCATTAATAAGTATTTGGAAGCTACAG  ${\tt GTCAACTTCCTGTTAAAAAAGGAAAAGCCAAGAAC} {\tt TAACTTTGCTTACTGTGAGTTGACTGACTCTAATTGAATC}$ TGCGTGGTTTTGATACTTTGATGGATTCCAGTGGAATAAATTCAGGCTGCTGAAACAAGAAATTCTGAGCCCAGG AAGCGGGCTCTTCTTCTTCAAAAGAAGCCCTTCTTGTTCATATTCAGGAGCTTCTGTTATATTCAAAGGTAATT CTATGTCTATCTCAACTCTATTGATTGGTTTTATAGTTTATTGAAAATCCTCAAATAAAATATAATTATTACTGA AAATTTTGTATCATAAGAGTTTTCAACATAGAGAAAAAGCTGAAAAAATGCAAAGAATAACCACATACTTTCCATC TACCTTCCTTTGTTAACGGGTTGTTTATCATATAATAATTTGTTTTTGTCATATTTGCTTTCACTGTCTATTATCT GTTTAAGTCTCATAACTCTATTTTTAGTTTGCTGAAGACTTGAAAGTGAATCGCATATATCATGACACTTCTTGG AGTGTCATTAATGGGCAGGCTTTTCTGTTGAAGAGTGGATTCCGTATGTTCTTCATAGAGAGTGTTTTTCAGATT CTTCATTGGGATATTAAAATATTAGCCAAATTTCTCTCTGTTTTATATATGTCTGTTTATTTCAGTTTGTGGTTT CTGCAAATTTGTAACTGCCTCTGTTTTAGGAGTATAAGTATTACTTCCTTGTGGTCTATTGTGAAGTAAAAAGTA GACCCTTGCATATACTATTCTTGTTTGTGTTCATCTTAATGTTTTTGTACAGCTAAATCAAATGTAATTTATAGA GTTAGTTTCATCAACCTAATGAATGCTAGTTAAATTTGAATTCCTTGGAATTTATCGTATATTGTATTCACTGAG ATTATGAAGGGACAAATGTTAATCTTTTGTTTCCAGAAAAAGTTGGGCTTTCCCAAGCAGTTCTATTACCCGGTT CAGAATTGCTTCATCCAAAAATCATCTGATGGTATAGATGGATCCTAGTCCTTTTCATTACCTGATGGTAGAAAT AAAATAATTGATT

#### 1778/2682 FIGURE 1609

MRLLGAAAVAALGRGRAPASLGWQRKQVNWKACRWSSSGVIPNEKIRNIGISAHIDSGKTTLTERVLYYTGRIAK MHEVKGKDGVGAVMDSMELERQRGITIQSAATYTMWKDVNINIIDTPGHVDFTIEVERALRVLDGAVLVLCAVGG VQCQTMTVNRQMKRYNVPFLTFINKLDRMGSNPARALQQMRSKLNHNAAFMQIPMGLEGNFKGIVDLIEERAIYF DGDFGQIVRYGEIPAELRAAATDHRQELIECVANSDEQLGEMFLEEKIPSISDLKLAIRRATLKRSFTPVFLGSA LKNKGVQPLLDAVLEYLPNPSEVQNYAILNKEDDSKEKTKILMNSSRDNSHPFVGLAFKLEVGRFGQLTYVRSYQ GELKKGDTIYNTRTRKKVRLQRLARMHADMMEDVEEVYAGDICALFGIDCASGDTFTDKANSGLSMESIHVPDPV ISIAMKPSNKNDLEKFSKGIGRFTREDPTFKVYFDTENKETVISGMGELHLEIYAQRLEREYGCPCITGKPKVAF RETITAPVPFDFTHKKQSGGAGQYGKVIGVLEPLDPEDYTKLEFSDETFGSNIPKQFVPAVEKGFLDACEKGPLS GHKLSGLRFVLQDGAHHMVDSNEISFIRAGEGALKQALANATLCILEPIMAVEVVAPNEFQGQVIAGINRRHGVI TGQDGVEDYFTLYADVPLNDMFGYSTELRSCTEGKGEYTMEYSRYQPCLPSTQEDVINKYLEATGQLPVKKGKAK N

## 1779/2682 FIGURE 1610

# 1780/2682 FIGURE 1611

 ${\tt MAVFHDEVEIEDFQYDEDSETYFYPCPCGDNFSITKEDLENGEDVATCPSCSLIIKVIYDKDQFVCGETVPAPSA} \\ {\tt NKELVKC}$ 

## 1781/2682 FIGURE 1612

#### 1782/2682 FIGURE 1613A

GCACCGGCCCGGAACACGCTAGTGGAGCGGAAGATTGCGGCGGCGGTCAGGCGGCCGCTTGCAGCCGGGACTTCA CCCCGCGCGTCGGGCAGGGGGGGGGGGGGGCGCCACTGCGCGCCCTGAGGAGCGCCCCAGCGGCGGCGCGACTGC GGCGACTACGGACTGGTGACGGCCTGCGGCTTCGGGAAGGACTTCCCGTAAGGGCCTCCTCAAGAAGGGCCC GTGCTACGGGGACGACGCTGCTTCGTGGCCCGGCACCGTTCCGCGGACGTGCTCGGGGTTGCAGATGGTGTAGG AGGCTGGAGAGACTATGGAGTTGATCCATCTCAATTCTCAGGGACTTTAATGCGGACGTGTGAACGTTTAGTAAA AGAAGGACGGTTCGTACCTAGTAATCCCATTGGAATTCTCACCACAAGCTACTGTGAGTTGCTGCAAAATAAAGT CCCTTTGCTCGGTAGCACCGCCTGCATTGTGGTGCTGGACAGAACCAGCCACCGCTTACACACAGCAAACCT GGGCGATTCAGGCTTCCTGGTTGTCAGGGGTGGTGAAGTCGTGCACCGATCAGATGAGCAGCAGCATTACTTCAA CACTCCATTCCAGCTCTCAATCGCTCCCCTGAAGCCGAGGGAGTCGTCTTGAGCGACAGTCCGGATGCTGCTGA TAGCACGTCTTTCGATGTCCAGCTAGGAGACATTATCCTGACGGCAACAGATGGACTCTTTGACAACATGCCTGA TTATATGATTCTTCAGGAGCTAAAAAAGTTAAAGAATTCAAATTATGAGAGTATACAACAGACTGCCAGAAGCAT TGCTGAGCAAGCTCATGAGCTGGCCTATGACCCAAATTATATGTCACCTTTTGCACAGTTTGCATGTGACAATGG  $\tt ATTGAATGTGAGAGGTGGAAAGCCAGATGACATCACCGTCCTTCTTTCAATAGTGGCTGAGTATACAGAC{\color{red}{TAG}} CT$ GAGGTGTCAAGTCCTGCCTTTCCTTTCATCCCCAAATTTCCCCTGCCATGTGTGCTGATCCTGCTGGCAGGAC CACATTTCTTTGCCACTGATCTCAATGGCCAGTGATGTAAGTCTTTTTGCCTGTCTTCTTGAGACTCGTTGAGATC TTTGTTGAGAACCACTACTATCATTCACTAGCTCATATCTGCCGGCAGCAATTGAAGAGATCCAATATTTGAAGA TTGGCCTTCATTTCTCGATGTTCTTTCCATGATGGGGATGGAGGTGTTCAGTGCCACCGTGGCTGTTACTTTTCA AAGTAGTTGAAGTATTGAAAATGAGTAATGTTGGTAAAGTGAATTCAAAATCCTAGTATGCTAAAGGGATGGTAC GTACTCCACAGGCATAGTCTTTGTTATGATGATTGGTGTGGCTTTATGTCTTTGTTATAAACTCCTATTTTTCAG GGGCTTATGATTCTGCTCTAAAACATTGCTCTGGGTTATACAGTTTTGATCCCAAAAGCTTTTTTGTTACAAATC GGGAGAAAAATCCATTTTAGTTCTATGGATGGAAATATTTCATGCTTTTAAAAAGATGTTTGTGTTCCTGTGGTT AAAGTTTTGGCAGTTTATTGATTAGTCCAAATCACAGGCTAAGGCCTGATCTCCAGGAGGGGTAGGGGAGACACT TTACCAGTATTTTTTTTTATGGAAATAATACTCAAGGTTGTAAAACCCCTCAAAGCCTAGAAATTTAATTGTTATGG CTGAAATTCCTCCTAGTTGTCTGATAGAATGCCCCTGAATGGGAACTCTAGGTCCCAAGGCCTGAAGGGTTGAGA ACAGACAGCTGTAACTTTGAATTTTGTTGGCTTTCAGTGGTCATGCTACCCATACTCGTACTCTCAGACCT FTTATTAGTAGCCTTGCTTTCTATAGAGCATGCACCAAATCCAGTGAGTCCATGTGGAGAGAGCACTGTGTGCGC AGCGGCAGCACAGACGTCCATGAGGAAAACTCCCAGTGATGATCTGACATTTACAATTACCCCACATGGAAA TTTAGGGGTTTCTGAATCAAGCTTAATGTTTACAGTTTCCAAATAGCCATTTTGCAGTGTATAGTTTCCTTACAA AACTACCCCGCATTCAGTTTTCACATTATCTGCAAGCTGAAACTTATTTTTAAGTTTTGTGTACAAGTTGACTGC TGTAAAGATATATTTTTGGGTCAGTTTTTTTCCTTCATTAACTTGGTGGTAGAAAAAAATATATACTTAGAAA TCCTTAAATTAAAGCCATGTTTTATATATAAGTCAGGTAACATTGGTGTATAGATGAGAATGCAATTAAACCTGA TGAGAATCTACTTGAGAATATAGAAAGTCTTTCTCTAAAGGAGATACTGACTCCCTGGTTTATTGCATTAAAATT TATGTTTGAGGTTACCTCAACTTGTTTTAAAAGATTTTGTTTTTGTGAATTTGTACTGTATATTTGAGTAACTGTC AGGCTTTTATTTAAAATTGTTTAACATGTACCATGTACATGTCATTACTATATTTCAATGCATCATGCTTGTAAC AGGCATTTCATTTATAATAAGAATGAGTTATTCATTTGTAAGCCGTTCAGTAATTTATCTACTATTCCTAAATTG GCATAATGTTAGATAATCTATTTTGAATCACCTTTAATTACATGTCAGAATGCCTTAACTACCCTAACTTGACAA AACTTCAGCTCTTTTGTTTAGGTTTTCAATTATTTTTGGTAAGAGTATGTAGCCTTATGATCTGGATATATTTTG CATTCATTTTCCAACGCCTACATTTAATTCCTGGTAAGAGCAGTGCTCGTCAAGTTTCTGGTTTTTCTCTGCTCT CATTTAACCCGTCAAACACAATCTTTGTAAAGCTAGATTGGTGGTGTTTTATACAACTTATTTACTCAGCTTACC AGTTTCACAGTGGAATTGGCTTTGGATCTGGCCTATAGATTAGTGACATAAAATATTTTCTCTATTTTCCCCTGT 

#### 1783/2682 FIGURE 1613B

TACTCTCAGTGGTCAGAGGCTGTGTTGGACCCATAGTAGAATTTTCCAGGTCACAGACCCAAGCTTCCATGGGTT GTTACTGTGCTGTACCACTTGGTGGGTCTGATTCTGAACCTGATGTGTGTTAATTATATTTTAAGCAACACAC ACGACACACACCCCCCATGTAATGGACTTTTATAACAAAAGAAAAATTTGGATTTCTAATTTACAAATGGCA AATTATTTATCCCTCTCTGGATGCACCAAAGACCAGTAAAGTTTATAGCTTTTCCATCTATATTTATAAAGCAAT ACTGTATTATAAAAATCAATATTTTTATCACATGCTTGAAATTTTTATTTTGTTGTTTTAAAATGTGCACTCTAA GATGCAGTAGAGTCCATAGGCTCTAAAAACTAAAAGAAATGGGATGCAGGGGGAACAAGTTATTTGTCCTGAGTT ACTGTACTTGCTTGACATGGTTGTTGGGTACTAAATCACAAAAGAATCCATTCCAGGTATGCATGTCTGGGGGGTT GTGTTCTGGATAGGACAGTAGCCCGGAGATGGAAACCACCTTCAGTACCATTAGCCCACCATACCAAGTAACAAG TTAGGCAGGAATCGTGGGAATTTATTGAGTCAGCTTTGAGTGTTTTGAGAGAATGTAAACAAGATTGGCTCGAATT GTAAACGTTTGTACTTTGGATGAGTTCATGGTTCTTTAGGTCACCTTAATACCAGCTATCTTTGGTAGAAGCTAC AGCATTCAGTTTCTCTGGAAACTGTATCACATTTTTGCATTTTAAAAATTTTACAGTATCAAAAAAACCAAAAATCT CTTCTCAACTAAAACGTGTCCATGTCAGAATTTTAACTGTTAGCAGGTAGTTTGTGGCAAAGATGGCTAAATAAT GAAGCAAATTAGAATCTGTGTGTATACTAATGAGCTGCTTTTTTTCTGTTGAGACTATCATTATTTGTCTTATTA CCCAAGAGGCAATTACCTGAATTTGGATGTCTGAATTATAACTTATGCAGGAATAGTTCTGTAAATACATTTAAA TAAACTGTAAAGATATTTAATAAATATAGTATTTATACTAATCTGTGTGCTTCTTTTGGTTTGAATAGTAACTAA ATGAGACACCAGCCCTTGACATTGAGTTTGTTGGTCACTATCAGGTCCTCATTTCCAAGCCTCCTAGTCATTCTA GCACTGATTATATGCTGCTACTTTAACTGGCTCCAGCTGCTTCACTACATCAGTTT

# 1784/2682 FIGURE 1614

TGPEHASGAEDCGGGQAAACSRDFSWAEAEEPPLLTSLWLRCARLSACEAPRVGQGRRRPLRAALRSAPAAARLR LRREPAPGLRVĹLLPRPPASSGGRRRLRTGDRPAAASGRTSRKGLLKKGACYGDDACFVARHRSADVLGVADGVG GWRDYGVDPSQFSGTLMRTCERLVKEGRFVPSNPIGILTTSYCELLQNKVPLLGSSTACIVVLDRTSHRLHTANL GDSGFLVVRGGEVVHRSDEQQHYFNTPFQLSIAPPEAEGVVLSDSPDAADSTSFDVQLGDIILTATDGLFDNMPD YMILQELKKLKNSNYESIQQTARSIAEQAHELAYDPNYMSPFAQFACDNGLNVRGGKPDDITVLLSIVAEYTD

#### 1785/2682 FIGURE 1615

GGGCTTATGAGGTCAATTGGAAATAAGAACACCATTTTACTGGGTCTAGGATTTCAAATATTACAGTTGGCATGG TATGGCTTTGGTTCAGAACCTTGGATGATGTGGGCTGCTGGGGCAGTAGCAGCCATGTCTAGCATCACCTTTCCT GCTGTCAGTGCACTTGTTTCACGAACTGCTGATGCTGATCAACAGGGTGTCGTTCAAGGAATGATAACAGGAATT CGAGGATTATGCAATGGTCTGGGACCGGCCCTCTATGGATTCATTTTCTACATATTCCATGTGGAACTTAAAGAA CTGCCAATAACAGGAACAGACTTGGGAACAAACACAAGCCCTCAGCACCACTTTGAACAGAATTCCATCATCCCT GGCCCTCCCTTCCTATTTGGAGCCTGTTCAGTACTGCTGGCTCTGCTTGTTGCCTTGCTTATTCCGGAACATACC AATTTAAGCTTAAGGTCCAGCAGTTGGAGAAAGCACTGTGGCAGTCACAGCCATCCTCATAATACACAAGCGCCA GGAGAGGCCAAAGAACCTTTACTCCAGGACACAAATGTGTGACGACTGAAATCAGGAAGATTTTTCTATCAGCAC AGAAATGTATCTGCATGAACTCCGTGGGAACTAAAGGAAGTGGGAACTTAGAACCAGACAGTTTTCCAAAGATGT TACAATTTCTTTGAAAAACCCTTTGTTTATTAGCACCAATTTCTCGCCACTAAGCTATTTGTTTTATTATACAT CCTTTAATTAAAAACTATATATGTAACTTCTTAGATATTAGCAAATGTCTCTGCTACCATTTCCTTAAGGTGTTG AGCTTTAACTCTATGCTGACTCAGTGAGACACAGTAGGTATGGTTGTGGACCTATTTGTTTTAACATTGTAA AATTTTGAGTCAGATTTTAATATTGTAAAATCTTGGGTCAAATAATTCAAAGCCTTAATGCAGATGCACTAAAAC TTTGAGCTTGTTTGCAGTACTTTTAAACATTATTCACTACTGTTTTTGAAGTGAGAAAGTATCAGCCATTTAGCA TTTAAGTTGGGGTATTTAGAGCCTGTAATCTAAATGCTGGCTCAAATTTATTCCCCAGCTACTTCTTATACCACT ATTCTTTTAATGTTTGCATAATCATAAGCACCTCAACACTTGAATACATAATCTAAAAATTATATAGTAAAGCTG AACACTTTATTTACAGAGCTAATGTTTGTCCTAAATTTTCAGGACCCTAGAGGAGAGCTTTATACAATTACCGAT GTGAATTTCTCTAAAGTGTATATTTTTGTGTCCAGTTATATTATTTAAAAAAGTGTTACTTTGTAAAAATTGTAT TCACTATGGTTAAATAAGGTCTTAAAAGAAATGTAAATATTCTGTTAATAAAGTTAAATATTTTAATGATTTTTT TTAAAAAAAAAAAAAAA

#### 1786/2682 FIGURE 1616

TCATGGCCGGCTCCTACCCTGAAGGTGCACCTGCAATCCTCGCCGATAAGAGGCAGCAGTTCGGAAGCCGGTTCC TGAGCGATCCGGCGCGGGTCTTCCACCACA<u>ATC</u>CCTGTTGATTATGAGATCAATGCCCACAAATACTGGAATGAC TTCTACAAAATCCACGAAAATGGGTTTTTCAAGGATAGACATTGGCTTTTTACCGAATTCCCTGAGCTGGCACCT AGCCAAAATCAAAATCATTTGAAGGATTGGTTCTTGGAGAACAAGAGTGAAGTATGTGAATGTAGAAACAATGAG GATGGACCTGGTTTAATAATGGAAGAACAGCACAAGTGTTCTTCGAAGAGCCTTGAACATAAAACACAGACACCT CCTGTGGAGGAGAATGTAACTCAGAAAATTAGTGACCTGGAAATTTGTGCTGATGAGTTTCCTGGATCCTCAGCC ACCTACCGAATACTGGAGGTTGGCTGTGGTGTGGGAAACACTCTTTCCAATTTTACAAACGAACAATGACCCA GGACTCTTTGTTTATTGCTGTGATTTTTCTTCCACAGCTATAGAACTGGTCCAGACAAATTCAGAATATGATCCT ATTATCATTCTCATATTTGTTCTTTCAGCAATTGTTCCAGACAAGATGCAGAAGGCTATCAACAGGCTGAGCAGG CTTCTGAAACCTGGGGGGATGGTACTTCTGCGAGATTACGGCCGCTATGACATGGCTCAGCTTCGGTTTAAAAAA GGTCAGTGTCTATCTGGAAATTTCTATGTGAGAGGTGATGGAACCAGAGTTTACTTCTTCACACAAGAGGAACTG GACACGCTTTTCACCACTGCTGGACTGGAAAAAGTTCAGAACCTGGTGGACCGCCGACTGCAGGTGAACCGAGGG  ${\tt AAGCAACTGACAATGTACCGGGTTTGGATTCAGTGCAAATACTGCAAGCCCCTTCTGTCCAGCACCAGC}$ TGGTGCATGCCTGTAATCCCAGCCACTCAGGAGGCTGAGGCAGGGAGGATCCATTGAGCCCAGGAGTCCAGCCTG GGCAAAATAGCGAGAGACCCTGAATCTGAAAGTAATGATAAAATAAAAAGAATATAAATGAGGTCTCGTTGATGC TGGACAATTCAAGAATTCAGACTTGAACCTTAAACCTAGGAAAAGTTACTTTGTATCAGGATTCTAACAATTATG TGTTATATATGACAAGTGTTTTTTGATTGTAATTGCGTTAAATCTTTTGAGAGTGTAAATGCCGGGCTAGGCAAT GATATTTTCCTGAC

# 1787/2682 FIGURE 1617

MPVDYEINAHKYWNDFYKIHENGFFKDRHWLFTEFPELAPSQNQNHLKDWFLENKSEVCECRNNEDGPGLIMEEQ HKCSSKSLEHKTQTPPVEENVTQKISDLEICADEFPGSSATYRILEVGCGVGNTVFPILQTNNDPGLFVYCCDFS STAIELVQTNSEYDPSRCFAFVHDLCDEEKSYPVPKGSLDIIILIFVLSAIVPDKMQKAINRLSRLLKPGGMVLL RDYGRYDMAQLRFKKGQCLSGNFYVRGDGTRVYFFTQEELDTLFTTAGLEKVQNLVDRRLQVNRGKQLTMYRVWI QCKYCKPLLSSTS

#### 1788/2682 FIGURE 1618

# 1789/2682 FIGURE 1619

MALAMLVLVVSPWSAARGVLRNYWERLLRKLPQSRPGFPSPPWGPALAVQGPAMFTEPANDTSGSKENSSLLDSI FWMAAPKNRRTIEVNRCRRRNPQKLIKVKNNIDVCPECGHLKQKHVLCAYCYEKVCKETAEIRRQIGKQEGGPFK APTIETVVLYTGETPSEQDQGKRIIERDRKRPSWFTQN

#### 1790/2682 FIGURE 1620A

NNNNNNNNNNNNNNNNNNNNNNNNNNNGCGCGGCCGGGCGAGGCGGCCCGTCCGGGAGCGGGCTCCGGGGAAG GGGTGCGGGTCTGGGCGCCGGAGCGGGGAGCGGGGCCGCGTCCCTCTCAGCGCCAGCTCTACTTGAGCCCCACGA GCCGCTGTCCCCCTGGCGCGCTCGGGGCCGCGGGACGGCGCACGCCGCCTTCTCCTAGTCAAGTATCCGAGCCG CCCCGAAACTCGGGCGGGGGGCGAGTCGGGGAAGTTTATTCTCCGGCTCCTTTTCTAAAAGGAAGAAACAGAAG TTTCTCCCAGCGGACAGCTTTTCTTTCCGCCTTTTTGGCCCTGTCTGAAATCGGGGGTCCCCAGGGCTGGCAGGC CAGGCTCGCTGGGCTCCTAATCTTTTTTTAATTTCCAATTTTTGATTGGGCCGTGGGTCCCCGCTGAGCTCCGG GTGGACAACTGGTCCCGCGGGCGCTCGCAGAGCCGGAAAGAAGTGCTGTAAGGGACGCTCGGGGGACGCTGTTCCT GAGGTGTCGCCGCCTCCCTGTCCTCGCCCTCCGCGGGGGGAGAACCCAGGAGCCCAGAGCCCAGAGCCCGCGGC GCGGCCGGCGGACGAACGAGCGCCAGCAGCCGGTGCGCCGCCGCGGGGGAGAAAAAACACCCTGT TTCCTCTCCGGCCCCCACCGCGGATCATGTACCCAGGATTATCCCGGGGAACTTTGACACCTCGTCCCGGGGCAGCA GCGGCTCTCCTGCGCACGCCGAGTCCTACTCCAGCGGCGGCGGCCAGCAGAAATTCCGGGTAGATATGCCTG GCTCAGGCAGTGCATTCATCCCCACCATCAACGCCATCACGACCAGGCCAGGACCTGCAGTGGATGGTGCAGCCCA CAGTGATCACCTCCATGTCCAACCCATACCCTCGCTCGCACCCCTACAGCCCCTGCCGGGCCTGGCCTCTGTCC  $\verb|CTGGACACATGGCCCTCCCAAGACCTGGCGTGATCAAGACCATTGGCACCACCGTGGGCCGCAGGAGGAGAGATG|\\$ GGAACCGACGCCGGGAGCTGACAGAGAAGCTGCAGGCGGAGACAGAGGAGCTGGAGGAGGAGAAGTCAGGCCTGC AGAAGGAGATTGCTGAGCTGCAGAAGGAGAAGGAGAAGCTGGAGTTCATGTTGGTGGCTCACGGCCCAGTGTGCA AGATTAGCCCCGAGGGCCCGATCGCCCCCAGCCCCTGGGCTGCAGCCCATGCGCAGTGGGGGTGGCTCGGTGG GCGCTGTAGTGGTGAAACAGGAGCCCCTGGAAGAGGACAGCCCCTCGTCCTCGTCGGCGGGGCTGGACAAGGCCC AGCGCTCTGTCATCAAGCCCATCAGCATTGCTGGGGGCTTCTACGGTGAGGAGCCCCTGCACACCCCCATCGTGG TGACCTCCACACCTGCTGTCACTCCGGGCACCTCGAACCTCGTCTTCACCTATCCTAGCGTCCTGGAGCAGGAGT CACCCGCATCTCCCTCCGAATCCTGCTCCAAGGCTCACCGCAGAAGCAGTAGCAGCGGGGGACCAATCATCAGACT CTCCTCCTTCCCAGGGACCAGCACCTTCAAGCGCTCCAGGGCCGTGAGGGGCAAGAGGGGGACCTGCCACCAGGGA GCTTCCTGGCTCTGGGGGACCCAGGTGGGACTTAGCAGTGAGTATTGGAAGACTTGGGTTGATCTCTTAGAAGCC ATGGGACCTCCTCCTCATTCATCTTGCAAGCAAATCCCATTTCTTGAAAAGCCTTGGAGAACTCGGTTTGGTAG ACTTGGACATCTCTCTGGCTTCTGAAGAGCCTGAAGCTGGCCTGGACCATTCCTGTCCCTTTGTTACCATACTGT CTCTGGAGTGATGGTGTCCTTCCCTGCCCCACCACGCATGCTCAGTGCCTTTTGGTTTCACCTTCCCTCGACTTG ACCCTTCCCTCCCCAGCGTCAGTTTCACTCCCTCTTGGTTTTTATCAAATTTGCCATGACATTTCATCTGGGTG GTCTGAATATTAAAGCTCTTCATTTCTGGAGATGGGGCAGCAGGTGGCTCTTCTGCTGGGGCTGACTTGTCCAGA AGGGGACAAAGTGCAATACAGAGCCTTCCCTACCCTGACGCCTCCCAGTCATCTCCCAGAACTCCCAGCGGGG CTCCCTGAGCTCTCAAGGAGATGCTGCCATCACTGGGAGGGCTCAGAGGACCCTTCCTGCCCACCTTCGGAGACGG  $\tt CTAATTACCAGGCCAGGAAGCATGCCAACAAAGCCACACGGGTGTCCTAGCCAGCTTCCCTTCACCTGGTGTCTT$ GAGTAGGGCGTCTCCTGTAATTACTGCCTTGCCATTCTGCCCCTGGACCCTTCTCTCCGGACCAGGGAGGCGTCC CTCCCTAGGAGCCACACATTATACTCCAAGTCCCTGCCGGGCTCCGCCTTTCCCCCACCCTGGCTCTCAGGGTGA CGCCACCCACAGAGATTTAATGAGCGTGGGCCTGGACCTTCCCCAGATGCTGCCAGGCAGCCCTCCCCAAGCCT CAAAGAAGCATTTGCTGAGGATGGAGAGGCAGGGGAGGCGGGAGGCCGTCACTGGAGTGGCGTCTGCAGCA GCTGCTGCCCAGCACCCGCTCAGCCTGTCCTGGCTGCTCACCTCCCGCAGGGCACCGGGCCTTTCCTGCCCTC TGTGGTCATCTGCCACCTGGTGGATCAAGTGCTTTCTCTTTTACACTCCCCTGTCCCCACCCCAGTGCACTCTTC TGGCCCAGGCGCAAGCAAGCTGTGAACAGCTGGCCTGAGCTGTCGCTGTGGCTTCATGCGCCATTCCT GGTTGTCTGTTGAATCTTTCTGGCTGCTGGAGTTGGAGATAGGATGTTTTGCTTCCCACTGCAGGAGAGCTGCCC CCTTTCACGGGGTTGGGGAAGGGTCCCCCTGGCCTCCAGCAGGAGCACAGCTCAGCAGGGTCCCTGCTGCCCACC GAGTAGCTCCTGGCCAGAACCAGCCTCTGCGGGGCTTGTGCTCTGCAAAGACTCTGCTGCTGGGGATTCAGCTCT AGAGGTCACAGTATCCTCGTTTGAAAGATAATTAAGATCCCCCGTGGAGAAAGCAGTGACACATTCACACAGCTG

#### 1791/2682 FIGURE 1620B

TTCCCTCGCATGTTATTTCATGAACATGACCTGTTTTCGTGCACTAGACACACAGAGTGGAACAGCCGTATGCTT AAAGTACATGGGCCAGTGGGACTGGAAGTGACCTGTACAAGTGATGCAGAAAGGAGGGTTTCAAAGAAAAAGGAT TTTGTTTAAAATACTTTAAAAATGTTATTTCCTGCATCCCTTGGCTGTGATGCCCCTCTCCCGATTTCCCAGGGG CTCTGGGAGGGACCCTTCTAAGAAGATTGGGCAGTTGGGTTTCTGGCTTGAGATGAATCCAAGCAGCAGAATGAG CCAGGAGTAGCAGGAGATGGGCAAAGAAAACTGGGGTGCACTCAGCTCTCACAGGGGTAATCATCTCAAGTGGTA TTTGTAGCCAAGTGGGAGCTATTTTCTTTTTTGTGCATATAGATATTTCTTAAATGAAGCTGCTTTCTTGTCTTT TATTTCTAAAAGCCCCCTTATACCCCACTTTGTGCAGCAAAGATCCCCGTGCAGGTCACAGCCTGATTTGTGGCC AGGCTGGACAAATTCCTGAGGCACAACTTGGCTTCAGTTCAGATTTCAAGCTGTGTTGGTGTTGGGACCAGCAGA AGGCAAACGTCCAGCCAACACACAGGACTGTAAGAGGACTCTGAGCTACGTGCCCTGTGAAGACCCCCAGGCTTT GTCATAGGAGGTCGTTCAGCTTCCCCAAAGTCAGAGGTGATTTGATTTTGGGGAAGACTGAATATTCACACCTAAG TGCTCCAGAATCACCAGACACCTCCATGGCTCCAGCTATGGGAACAGCTGCATTGGGGCTGCCTTTCTGTTTGGC TTAGGAACTTCTGTGCTTCTTGTGGCTCCACTCGCGAGGCAGCTCGGAGGTGTGGACTCCGATTGGGCTGCAGGC AGCTCTGGGACGGCACAGGGCGGGCGCTCTGATCAGCTCGTGTAAAACACACCGTCTTCTTGGCCTCCTGGCCAG GCTGAGGCTTAGGAAATTGCTGGAGCCGGCTCCAAGCAGATAATTCACTGGGGAGGTTTTCAGAGTCAAACATCA  ${ t TTCTGCCTGTGTTGGGGGCCAGGTGTGTCACACAAGCATCTCAAAGTCAAAAGCCATCTGGGGCTGCTGCTTCTC}$ TGGGACTTTTTTCTCTTTTCCTTGATGGACCAACAGTGCAAATGCAATCTCGCCATTTAACTTTCAGGTCGATT TTAGGCGCTTTTATATAGATCCTCGTTAGGATGAGACTAAGGGATGAGGACATCTCTTTATAAAAGGCCCCCTAAG  $\tt CGTGCACTCCTCAGATGGTCAGAGGGGTAACCCAAGTCCTTAGAGAATTTGGGGACCAATAGAATATGTGATGTG$ TGAATTTTCTTTAAAAAACTTAAGGAGTCTTTGCTACCTTCTGCTTGTTGAGTTGTTTTGGCATTCATATTAAAA TGTCCTGTAGCTTTTTAAAAGGAAACCCAGTCATCCCACTATGAATCTGGCATCTTCTTATGCTTCTAGTGTTTT GGCCATACATCAACCAAGGGGTTTAATTTATCCAATGCTTGACGACATGTTCAGGAGGGGCTGGATCAAATTTTG TTTTTTTTTTTTAAATTTAGGATAACACATTTTTGTTTCTAAAGTGATTTGTGATTTGTGCTGTATAAACTGTA TAAAAGGTTCTGTTTTTAAAGGTGGATTTTCATTCCTCTGGGGACAGTGGTCGCCAAGACATCTACATTGTAAGA GAACACAGTGGAAGATCCTGTCCTGATTCTCAAAAATTATTTCTCTGTATGATTAAAAGTTTATTCCATTTATT TTAGTTTGTGTTTACTTGATTTTGAGGAAGAAATATTTGACTTTGTGTAAAGAGTAGGGTATCAGGGTGTCTTT GATATGTTAATGACGTGGAGTAAAGTCAGCTGTAAGACTCTGGAGGCAAACAAGTTGTATATGGTTCATATGGCT TGGAGAGTCTCCTAAATAGACCTTCCAGGCAGAACCGCAAGCTCAAAATCTTTGTATAGTTTTGAAAATTGAGGA CTTCTTTCCCTTGCGATTTTTTTGGGNGAGGGGGGTTAGCATTTCCACTTTCAG

# 1792/2682 FIGURE 1621

MYQDYPGNFDTSSRGSSGSPAHAESYSSGGGQQKFRVDMPGSGSAFIPTINAITTSQDLQWMVQPTVITSMSNP YPRSHPYSPLPGLASVPGHMALPRPGVIKTIGTTVGRRRRDEQLSPEEEEKRRIRRERNKLAAAKCRNRRRELTE KLQAETEELEEEKSGLQKEIAELQKEKEKLEFMLVAHGPVCKISPEERRSPPAPGLQPMRSGGGSVGAVVVKQEP LEEDSPSSSSAGLDKAQRSVIKPISIAGGFYGEEPLHTPIVVTSTPAVTPGTSNLVFTYPSVLEQESPASPSESC SKAHRRSSSSGDQSSDSLNSPTLLAL

#### 1793/2682 FIGURE 1622

AGTCGGTGAAGGACGTGGATCGGTACCAGGCTGTCCTGGCCAACCTGCTGCTGGAGGAGGATAACAAGTTTTGTG CAGATTGCCAGTCTAAAGGGCCGCGATGGGCCTCTTGGAACATTGGTGTTCATCTGCATTCGATGTGCTGGAA TCCACAGGAATCTGGGGGTGCACATATCCAGGGTAAAGTCAGTTAACCTCGACCAGTGGACTCAAGAACAGATTC AGTGCATGCAAGAGATGGGAAATGGAAAGGCAAACCGACTTTATGAAGCCTATCTTCCTGAGACCTTTCGGCGAC CTCAGATAGACCCAGCTGTTGAAGGATTTATTCGAGACAAATATGAGAAGAAATACATGGACCGAAGTCTGG ACATCAATGCCTTTAGGAAAGAAAAAGATGACAAGTGGAAAAGAGGGGAGCGAACCAGTTCCAGAAAAAAATTGG AACCTGTTGTTTTTGAGAAGGTGAAAATGCCACAGAAAAAAGAAGACCCACAGCTACCTCGGAAAAGCTCCCCGA AATCCACAGCGCCTGTCATGGATTTGTTGGGCCTTGATGCTCCTGTGGCCTGCTCCATTGCAAATAGTAAGACCA GCAATACCCTAGAGAAGGATTTAGATCTGTTGGCCTCTGTTCCATCCCCTTCTTCTTCCGGTTCCAGAAAGGTTG TAGGTTCCATGCCAACTGCAGGGAGTGCCGGCTCTGTTCCTGAAAATCTGAACCTGTTTCCGGAGCCAGGGAGCA AATCAGAAGAAATAGGCAAGAAACAGCTCTCTAAAGACTCCATTCTTTCACTGTATGGATCCCAGACGCCTCAAA TGCCTACTCAAGCAATGTTCATGGCTCCGCTCAGATGGCATATCCCACAGCCTACCCCAGCTTCCCCGGGGTTA CACCTCCTAACAGCATAATGGGGAGCATGATGCCTCCACCAGTAGGCATGGTTGCTCAGCCAGGAGCTTCTGGGA TGGTTGCCCCCATGCCATGCCTGCAGGCTATATGGGTGGCATGCAGGCATCAATGATGGGTGTGCCGAATGGAA CTCAGCAGCTGCAATGGAACCTTACTCAGATGACCCAGCAGATGGCTGGGATGAACTTCTATGGAGCCAATGGCA TGATGAACTATGGACAGTCAATGAGTGGCGGAAATGGACAGGCAGCAAATCAGACTCTCAGTCCTCAGATGTGGA  $\texttt{AA}\underline{\textbf{TAA}} \texttt{AAACAAAACACCTGTATGGCTGCCATTCTCTTCAGCCCTCGCTCTCCCCTTTCCACAGCCTCCACCCCTG}$ ACCCCCATCCTCTTTTCCTACCTCTCTGTTTGGTTTAGAAATTGCTCAATAAGTCATTTGGGGTTTTGGCATCCTG CCCAGCCACTTCCCAAACATGAAGACCTCTCTGTTGCTTTATGTTGTACATGCCCCATAGCCATCCCAACGTCCT CCCCAGTCCTCCTGGCACCAGCACCTTAGAAGTTGTTGGCAGAAGGCACTTAAACTGTGGGAGAAGTGTGCAC ACCTTTGAGTCCCTCCAGGGTTAAAGCTCCTGTCAGACTCTCAGAAGGGTCTGTGGGTGTTGTATATTAGG CAAACAGGGGAAAGCTTAGAGGTCCTTCTATATGTGTTAATAAGCTGTTTCTAAGTGTTTAAATTTGAAAAGCAT CATGTTCTCATGATTTATGGGAATGAAGCAAGTACTGAAATCAAATTAAATACTCCCTGGGTCCTGGGTCAGTTT ACACAGACACACCCTTCCCGCCTCCCCTGCCTTCAGTAGGATCTGGCTCCGTGGCTGGAGGACCAACC GTTCCGCCTCCCACCTCTCCCCATCTGCTCTGGGTATTTTTGTTTTTGTTTTAGTTTTAGGTTTACAACAGAGAG GAATTAATTTATCAGCAGCCTAAAACTGTTGTGTTTTTCTTATGGTTTAAAAAAACGCCATGTCATTGATAACTCC CTTTCTCCCTTCCCCGGTCTGCTGATCACTCTTTCATGCCTGTGTATCCAGGGTGCTCTGTTTCCCCAC CGTTCCCAGGTGTACGAGGCAGAGGGCCGGGACAGCTTTCCTCTCAGTCATTGTTCACCCCACTTGAAAATTCAG ACAAGAAACTTTGCTTAAAAGATTTCATGTGTGGGAACCACAGTTCCTGGCTGCCTTTCTCCTGTGTATGTGTA 

# 1794/2682 FIGURE 1623

MTGKSVKDVDRYQAVLANLLLEEDNKFCADCQSKGPRWASWNIGVFICIRCAGIHRNLGVHISRVKSVNLDQWTQ EQIQCMQEMGNGKANRLYEAYLPETFRRPQIDPAVEGFIRDKYEKKKYMDRSLDINAFRKEKDDKWKRGSEPVPE KKLEPVVFEKVKMPQKKEDPQLPRKSSPKSTAPVMDLLGLDAPVACSIANSKTSNTLEKDLDLLASVPSPSSSGS RKVVGSMPTAGSAGSVPENLNLFPEPGSKSEEIGKKQLSKDSILSLYGSQTPQMPTQAMFMAPAQMAYPTAYPSF PGVTPPNSIMGSMMPPPVGMVAQPGASGMVAPMAMPAGYMGGMQASMMGVPNGMMTTQQAGYMAGMAAMPQTVYG VQPAQQLQWNLTQMTQQMAGMNFYGANGMMNYGQSMSGGNGQAANQTLSPQMWK

## 1795/2682 FIGURE 1624

## 1796/2682 FIGURE 1625

# 1797/2682 FIGURE 1626

 ${\tt MAPKVFRQYWDIPDGTDCHRKAYSTTSIASVAGLTAAAYRVTLNPPGTFLEGVAKVGQYTFTAAAVGAVFGLTTC} \\ {\tt ISAHVREKPDDPLNYFLGGCAGGLTLGARTHNYGIGAAACVYFGIAASLVKMGRLEGWEVFAKPKV} \\$ 

#### 1798/2682 FIGURE 1627

AGGCCACAGGGCATGGATCAGCCCCACTGCATCTCAAGTGAACTGTATAGCCCAAGTCTTAAACCTCTCACGGGGC AAGCCTGACACAGACCCCCTTTAGATGCTCAGGCATACTGTTTCCATCCCGATTCCACTCTTCGGCTCTGACACG  ${\tt TCCCTTGCAAAGTCTCCGCAGGTGCTGTGAAGAGCCTTCC} \underline{{\tt ATC}} {\tt CTAGAGAGTTTCTCTAAGAGTGTGATTTCTCA}$ TAGGGCTAGTAAGGGAGATTGTATACCTGTTGTCCACAGTCTTCAGGCAGCTCCCCAGGTCTCTGAACCCCAGAG TGTCGTCATTGGAGAGAGCAGTGACTGCGAGAGATGGTGGAGGCCGCTAAGCATGGTAGAGGCTAGAGGAAGTCT ATCCACAGGCAGTTGTGTTCCCAGCAATTCCTCCCATCCTGCATGGTTCACACCAAGAGAACCTTCAGATCCTAC CAGCAACCGTAGCACCTTCCACCCAGGGGACTCCCAGAAGCCAGTAAAGAGACCAGGAGCCACCTCAATCAGCAG GACAGCCTCACTGCCCCTCTTGCAGAGTCCCCTTTGCCCATCC $ext{TGA}$ ATGCACAGTCTCCCTGCTCATGCCCTTCA  $\tt CGGAGAGAGGGGGCAGGCCCGGCCCAGCCGGCCAGCCTGAGCTTGCTGCCCTCCAGTAGAGACA$ GAGTAGGGGGTATAGGGGGAATCATTTAAATCATTAAGATTCCCCTGCTCAAACCCAGATTCCTGTGTACA GATGCTATTTAGAGGGAATCAGAAAAATGCCAAGCCTTTTCTCTTTTGAATGTGCTATTTTTATAACTGAACTTGT ΑΑΑΑΑΑΑΑΑΑΑΑΑΑΑΑΑΑΑΑΑΑΑΑΑΑΑΑΑΑΑΑΑ

### 1799/2682 FIGURE 1628

 ${\tt MVEISLKSVISHRASKGDCIPVVHSLQAAPQVSEPQSVVIGESSDCERWWRPLSMVEARGSLSTGSCVPSNSSHPAWFTPREPSDPTSNRSTFHPGDSQKPVKRPGATSISRTASLPLLQSPLCPS}$ 

#### 1800/2682 FIGURE 1629

GGAGGGAGAGGCTGAATGTTGGCTCGGTAATTGAGAGGAGCGCCCCCCAGAGCTTCCTCCCGGGGCCCCCCC TCAGTCCGTCCGCGCTTCTCAGCCGCCAGTCTCCTGGCCGCGCAGTCCCCGCGGACGGCCGGGCCGCGGAGACCC TCGCAGAAGAGGCGCTGCCGGCGAGGACTGGCCGGCGGCATCCGAGGCGCGCCCCCACCGCCACCCCCACC CGCCTGCCAGCCGGTCCCTCCGGCCGCCGCCATGTCCTCCTCTCTCCTCCCCCAGGGAGACGTACGAGGAGGA  $\verb|CCGGGAGTACGAGGCCAAGCGTCTCAAGACCGAGGAGGGGGGAGATCGACTACTCGGCCGAGGAAGGCGA|$ AGGTGGAAGTCATCATAAAGTTTCTGTTTCACCCGTCGTCCATGTTCGAGGACTCTGTGAATCTGTGGTGGAAGC AGACCTCGTGGAAGCGCTGGAAAAATTTGGGACAATATGCTATGTGATGATGATGCCATTTAAACGACAGGCTCT AGTGGAATTTGAAAACATAGATAGTGCCAAAGAATGTGTGACATTTGCTGCAGATGAACCCGTGTACATTGCTGG TCAACAGGCTTTTTTCAACTATTCTACAAGCAAAAGGATCACTCGGCCAGGAAATACTGATGATCCATCAGGAGG CAACAAAGTTCTTCTGCTCTCAATTCAGAATCCGCTTTATCCAATTACAGTGGATGTTTTATATACTGTATGCAA CCCTGTTGGCAAAGTGCAACGTATTGTTATATTCAAGAGAAATGGGATACAAGCAATGGTTGAGTTTGAATCAGT ATATGCACGGCCAACTCGTCTAAATGTTATTAGGAATGACAATGACAGTTGGGACTACACTAAACCATATTTGGG  ${\tt AAGACGAGATAGAGGAAAAGGGTCGCCAGAGACAAGCCATTTTGGGAGAACACCCTTCTTCGTTTAGACATGATGG}$ CTATGGATCCCATGGTCCATTATTGCCTTTACCAAGTCGTTACAGAATGGGCTCTCGAGATACACCTGAACTTGT TGGATTACATCAACTAAAAATGAATTGTTCAAGAGTCTTCAACCTGTTCTGCTTATATGGAAATATTGAGAAGGT AAAATTTATGAAGACCATTCCTGGTACAGCACTGGTAGAAATGGGTGATGAGTATGCTGTAGAAAGAGCTGTCAC ACACCTTAATAATGTCAAATTATTTGGGAAAAGACTTAATGTTTGCGTGTCTAAACAACATTCAGTTGTTCCAAG TCAAATATTTGAGCTGGAGGATGGTACCAGCAGCTACAAAGATTTTGCAATGAGCAAAAATAATCGCTTTACAAG TGCTGGCCAAGCATCTAAGAATATAATCCAGCCACCCTCCTGTGTTTTGCATTATTATAATGTTCCATTGTGTGT CACAGAAGACCTTCACAAAGTTGTGTAATGACCATGAAGTTCTTACATTCATCAAATATAAAGTGTTTGATGC AAAACCTTCAGCCAAAACACTTTCTGGGCTATTAGAATGGGAGTGCAAAACTGATGCAGTAGAAGCCCTTACGGC ACTGAATCACTATCAGATAAGAGTGCCGAATGGTTCCAATCCCTATACATTGAAGCTTTGCTTTTCTACATCATC CCATTTA<u>TAA</u>GAAGAGAGAGCATGTTAGAATTTATGTTCACCTTTATTACAATTTCAAAGCTACACTTCATTAA AAAAAAATCTAAAATGGTTGATCTCATGTTGCCTTGCTTACTTTAAGATCCTGTTCTGTAATAAACATATTTTGC CTTGAGTAAAAAAAAAAAAAAAAAAAAA

#### 1801/2682 FIGURE 1630

MSSSSSSPRETYEEDREYESQAKRLKTEEGEIDYSAEEGENRREATPRGGGDGGGGGRSFSQPEAGGSHHKVSVS PVVHVRGLCESVVEADLVEALEKFGTICYVMMMPFKRQALVEFENIDSAKECVTFAADEPVYIAGQQAFFNYSTS KRITRPGNTDDPSGGNKVLLLSIQNPLYPITVDVLYTVCNPVGKVQRIVIFKRNGIQAMVEFESVLCAQKAKAAL NGADIYAGCCTLKIEYARPTRLNVIRNDNDSWDYTKPYLGRRDRGKGRQRQAILGEHPSSFRHDGYGSHGPLLPL PSRYRMGSRDTPELVAYPLPQASSSYMHGGNPSGSVVMVSGLHQLKMNCSRVFNLFCLYGNIEKVKFMKTIPGTA LVEMGDEYAVERAVTHLNNVKLFGKRLNVCVSKQHSVVPSQIFELEDGTSSYKDFAMSKNNRFTSAGQASKNIIQ PPSCVLHYYNVPLCVTEETFTKLCNDHEVLTFIKYKVFDAKPSAKTLSGLLEWECKTDAVEALTALNHYQIRVPN GSNPYTLKLCFSTSSHL

#### 1802/2682 FIGURE 1631

GGCGGGCGAGCAAGCGAGCGCGTCTCCACCAGCATCTGCCGCGGCCGCCTTTGCCCGAAGCCCGGGGACGAACC GACGGACCGACCGCCTGGCGCACGGACGCGCGCTCGCTTTGTGTTCGGGGGCTAGCGTCGGCGAGGCTTGAGCT TGCAGCGCGCGCTTCCCTGCTTTCTCGCGGCCACCCCGGCTCCGGCGCGCCTCGGCGCGCGAGGGGCTGGAGGTG CGGGAGCCGCTCTCCGCCGGTCGGTCCCCGCGCGGCTGAGCCCAGGCCGCCAGCCGCCGCGCCCGTGCGGTGTC CCTGAGCTCCTGCTCCCGGGGCTGCTCCGAGCAACGGTGCTTCGGAGCTCCAAACTCGGGCTGCCGGGGCAA  $\tt GTGTCTTCATGAACCCAGAGG\underline{ATG}{\tt TCCGGGAAGCACTACAAGGGTCCTGAAGTCAGTTGTTGCATCAAATACTTC}$ ATATTTGGCTTCAATGTCATATTTTGGTTTTTTGGGAATAACATTTCTTGGAATTGGACTGTGGGCATGGAATGAA AAAGGAGTTCTGTCCAACATCTCTTCCATCACCGATCTCGGCGGCTTTGACCCAGTTTGGCTCTTCCTTGTGGTG GGAGGAGTGATGTTCATTTTGGGATTTGCAGGGTGCATTGGAGCGCTACGGGAAAACACTTTCCTTCTCAAGTTT TTTTCTGTGTTTCCTGGGAATTATTTTCTTCCTGGAGCTCACTGCCGGAGTTCTAGCATTTGTTTTCAAAGACTGG ATCAAAGACCAGCTGTATTTCTTTATAAACAACAACATCAGAGCATATCGGGATGACATTGATTTGCAAAACCTC ATAGACTTCACCCAGGAATATTGGCAGTGCTGTGGGGCTTTTGGAGCTGATGATTGGAACCTAAATATTTACTTC AATTGCACAGATTCCAATGCAAGTCGAGAGCGATGTGGCGTTCCATTCTCCTGCTGCACTAAAGATCCCGCAGAA GATGTCATCAACACTCAGTGTGGCTATGATGCCAGGCAAAAACCAGAAGTTGACCAGCAGATTGTAATCTACACG AAAGGCTGTGTGCCCCAGTTTGAGAAGTGGTTGCAGGACAATTTAACCATCGTTGCTGGTATTTTCATAGGCATT GCATTGCTGCAGATATTTGGGATATGCCTGGCCCAGAATTTTGGTTAGCGATATCGAAGCTGTCAGGGCGAGCTGG TAGACCCCCTGCAACCGCTGCTGCAAGACACTGGACAGACCCAGCTTTCGGGACCCTCCCGCGTGCCGAACTGAT CTTCGAGCTGCATGGACCTAATCACAGATGCAGCCTGCAGTCTCGCCTAATGGAGCTGCCATTAGGGGAGTGTAA  ${\tt TACTTGAATGTGCAGAAAATACATTCTTGTCCTCATCTTCCGTAATTGGAGGGCTGGGAGAGGCAGCTTTGCTCT}$  ${\tt TCACCACACCTTGGACGGACCACCTTCTTTCTGTTCCATGGCCTGAAGGAGTGCATCTCCTCAAAGACTCAGCCC}$ GAAGAAACAACTCATCTTTGGGTTCAGATTTTGTGATGGTATTCAGCAAGTCACTTGGGCGAGCACACTTGGTC TATCCTGGAAAGTCTCCTTATAAGAGAAGTTGTGTATTTCATGTGCACCGAGCAAGGGCATTGGAAGACGTCATG AGGCTGTATTTTAGCAGGACTGATCGTTTTTCTAAGTAGACCTGAGCTTTGTTTATCAGTGAAATTCAAGGAGAA AATGAGGTTAATGAAGAGGTATCAGTTAAATATCCCCTTCTTCTCACCCTGCCAAAATTAGCAGTTGGATTTTTG GAAACTCTGGAATATTCTGGGTCATTTTGTTTTGTATGTTTTGTTTTTTCGTCTTCCAAAGGTGAAAGCTATGA TACAGTTCCACTTAAATTTTAGTGTTTTCTTACTCAGCTCAAGCATTAATTTTTGATTAAGTCTTAATCTGCATG ACCTGTGAATCTGAATCCATCATCTCCCTTTCCTGCCAGCTTTTCTACAAACATTGAAATATGTTATTTGGTCAG ACCATCCAAATGCTTCCCTGGTCTTGATGATCTCTTCCAGAGTCGATCTGAGTGGCCTTTTCTGCACCCTCCCCT TCTTTCTCTTTGAATGGAATTAAACCCAATTTGGAAACAACATTGACCCAGTCAAAAGCTTCTAATGGTTTCTTT TTGCAGACTAACCATCAGGATGGTATCAAAGCACAAATACTTTGGAGGGGAATGCGTTGAACTGGGGCAAGTACT GCCCTCTAGATTTTAATCCAGCTGGTGTCCACCGGATGTTGCCCTCCTGGGGAGCAGATATCAGTCTGTGGAACT TTGTGGAAATTAAGCGAGGTTTTCCATTTCAGCCCCATGGTGCATGGTGGCCGATGAATGTGTCAGTCTGCT CAGAGAAAGGACAAAAAGGAAATTATTTCAAAACTGTGTTCACTGTTTGGGTGTGTATGGCTCTGCATGTGT GTGTTTTTGTCTCTGTATAGGTAGAGGTATTCACATCTTACTCCGACTGTAAGGTTGTCTTACTTCATCTCTGCC CCCACCACAGTTGCCATTTTGTAATGTCCTTCCAACATGGAGAGACACGAGCTCTCTCCAGTTGGCATCATTTG TCTTTTTTGTTGATTGCCTCATTCTCCAGTGAACTCCATCTGGCCAATTGATTCAGAATCAGGCAAGATCCCTGC TTTACACTTGAGAGTGATTGTAATAAAGGCTGTCATTAATAAACTTGGTTCTACCTTAAAAA

## 1803/2682 FIGURE 1632

MSGKHYKGPEVSCCIKYFIFGFNVIFWFLGITFLGIGLWAWNEKGVLSNISSITDLGGFDPVWLFLVVGGVMFIL GFAGCIGALRENTFLLKFFSVFLGIIFFLELTAGVLAFVFKDWIKDQLYFFINNNIRAYRDDIDLQNLIDFTQEY WQCCGAFGADDWNLNIYFNCTDSNASRERCGVPFSCCTKDPAEDVINTQCGYDARQKPEVDQQIVIYTKGCVPQF EKWLQDNLTIVAGIFIGIALLQIFGICLAQNLVSDIEAVRASW

#### 1804/2682 FIGURE 1633

CCGGCATGGAGGAGCGCGGATTCCGAGCCGACCCCGGCTGCAGCGGCCTGGGTCCGGGCGGTGTTCGCGGCT  $\tt TTGGCGACGGCGGTGGAGCTCCTTCGTGGGCCCCTGAGGACGCCTGGATGGGCACTCACCCTAAGTATCTAGAAA$ TGATGGAATTAGATATAGGAGATGCCACCCAAGTTTATGTAGCGTTCTTGGTTTACCTGGACCTCATGGAAAGCA AAAGCTGGCATGAAGTAAACTGTGTAGGATTACCAGAACTCCAGCTCATCTGCCTTGTTGGTACTGAGATAGAAG GGGAGGGGTTACAGACTGTGGTGCCTACCCCCATCACTGCTTCCCTCAGCCATAACAGGATAAGGGAGATCTTGA AGGCATCTCGAAAGTTGCAAGGTGATCCAGATTTGCCGATGTCTTTTACTTTGGCCATAGTGGAGTCTGATTCTA CAATAGTCTATTATAAACTTACTGATGGATTTATGCTGCCAGACCCTCAGAATATTTCTCTTAGAAGATGACATC CATGTTTCCTGATGCTTGTTTTATTCATACAAGATTGGATTTGAGACCCATCAGACTGCTTCATCTTTATCTCA GAAATAGGGTTGACGTACATAGTGAGGGTTGACTTCCCCATTCCATAAGGTTTTCATTCTGAAGAGTAAAACTTC CCCAGGTAGAAGACTTTCTCCTTCTTAAAAAATATAGGGTGATTTCTTTAAAACTTTGTTATCTAGAGACAGTTT ACACTCAAAGTTGTCTCTTTGTTTCTTGCTGCCACTGCCAGCTCATTGTTGAGACTGCCATTTCTTTTCTCTTACT CAGCTCTCCCCAGTGCCTTTTGGCCACTGCAGCTACCGTAGAATGGCATTTTATATGTACCTTGTCACCCACTTC  ${ t CTCTTTTTTGGTTAACTTTAAATCAAAACTCAAAATATGTTCATCCAGAGTGTGTCTTAAGTAACTTACGTGTCT$ TAAGTAACAGGGACCAGAGACATGTTACCTACAAGAGTTCTGGGCTATCCTTTTCATTCTTATCACATATCATAG TTGTTAATGTCTCTCAAATTGTACAAAGTATAAAAAATTATATGCACAAAGATGTTCCAAGTGACATTACTTTTA GTAGCCCAAATTATAAACCACTTTAAAGTTTGGGGTAAAGATTGGCAAACTTTTTCTATAAAGGGCCAGAAAGTA ACTATTTTAGGTTTTTAAACCTACTGTCTGTCATAACTTGTCAACACTGCTGTATGAAGCACAAAAGCAGCCA TAGACAATACATAAACAATACGGGCGTGGCTTTGTTCCAGTAAAACTTTGTTTACAAATGTGGTGCCATAGTTTG TCATCCCTGGGTCTAGGAAATAGTCAATAAACAGATATATACAAATGATACATAATGTACTTATTAAAAATTAGT AATGAATATTATTAAAAACATGAAAATATTACCTTAAGTAAAAATTGCAAGACGGAAAAGTGTATAAGTGGGTGT AATCATGGCTGAAATAACAGACCAAGCATATGATAAAAAGATAACAAAGTAAATCAAATTACTAACTGGTTATAG TGGGATAGGAGGCAGAAAATGGATGACTTTGTCTTTTCTCAATGTTTTTATTTGTATTTTATAAAAAATGTTT TAAAATTAAAA

#### 1805/2682 FIGURE 1634

#### 1806/2682 FIGURE 1635

GCGCGGACCTTTCAACAAGGGCTTTATTAATTCTCACGCTGCGGCCCTGGAAAGCGATGGAGGTGGCGGCTAATT GCTCCCTACGGGTGAAGAGACCTCTGTTGGATCCCCGCTTCGAGGGTTACAAGCTCTCTTTGAGCCGCTGCCTT GTTACCAGCTGGAGCTTGACGCAGCTGTGGCAGAGGTAAAACTTCGAGATGATCAATATACACTGGAACACATGC ATGCTTTTGGAATGTATAATTACCTGCACTGTGATTCATGGTATCAAGACAGTGTCTACTATATTGATACCCTTG GAAGAATTATGAATTTAACAGTAATGCTGGACACTGCCTTAGGAAAACCACGAGAGGTGTTTCGACTTCCTACAG ATTTGACAGCATGTGACAACCGTCTTTGTGCATCTATCCATTTCTCATCTTCTACCTGGGTTACCTTGTCAGATG GAACTGGAAGATTGTATGTCATTGGAACAGGTGAACGTGGAAATAGCGCTTCTGAAAAATGGGAGATTATGTTTA ATGAAGAACTTGGGGATCCTTTTATTATAATTCACAGTATCTCACTGCTAAATGCTGAAGAACATTCTATAGCTA CCCTACTTCTTCGAATAGAGAAAGGAATTGGATATGAAAGGAAGTGGTTTCTATGTTTCTCTGGAGTGGGTCA CTATCAGTAAGAAAATCAAGATAATAAAAAATATGAAATTATTAAGCGTGATATTCTCCGTGGAAAGTCAGTGC CACATTATGCTGCTATTGAGCCTGATGGAAATGGTCTAATGATTGTATCCTACAAGTCTTTCACATTTGTTCAGG CTGGTCAAGATCTTGAAGAAAATATGGATGAAGACATATCAGAGAAAATCAAAGAACCTCTGTATTACTGGCAAC AGACTGAAGATGATTTGACAGTAACCATACGGCTTCCAGAAGACAGTACTAAGGAGGACATTCAAATACAGTTTT TGCCTGATCACATCAACATTGTACTGAAGGATCACCAGTTTTTAGAAGGAAAACTCTATTCATCTATTGATCATG AAAGCAGTACATGGATAATTAAAGAGAGTAATAGCTTGGAGATTTCCTTGATTAAGAAGAATGAAGGACTGACCT GGCCAGAGCTAGTAATTGGAGATAAACAAGGGGAACTTATAAGAGATTCAGCCCAGTGTGCTGCAATAGCTGAAC GTTTGATGCATTTGACCTCTGAAGAACTGAATCCAAATCCAGATAAAGAAAAACCACCTTGCAATGCTCAAGAGT TAGAAGAATGTGATATTTTCTTTGAAGAGAGCTCCAGTTTATGCAGATTTGATGGCAATACATTAAAAACTACTC ATGTGGTGAATCTTGGAAGCAACCAGTACCTTTTCTCTGTCATAGTGGATCCTAAAGAAATGCCCTGCTTCTGTT TGCGCCATGATGTTGATGCCCTACTCTGGCAACCACTCCAGCAAACAAGATGATATGTGGGAGCACATCGCAA CTTTCAATGCTTTAGGCTATGTCCAAGCATCAAAGAGAGACAAAAATTTTTTTGCCTGTGCTCCAAATTACTCGT ATGCAGCCCTTTGTGAGTGCCTTCGTCGAGTATTCATCTATCGTCAGCCTGCTCCCATGTCCACTGTACTTTACA ACAGAAAGGAAGGCAGGCAAGTAGGACAGGTTGCTAAGCAGCAAGTAGCAAGCCTAGAAACCAATGATCCTATTT TAGGATTTCAGGCAACAAATGAGAGATTATTTGTTCTTACTACCAAAAACCTCTTTTTAATAAAAGTAAATACAG AGAAT<u>TAA</u>TTATTCTAACATATTGGCCTCTTTGTACTGGAAAAGTATTCAGTGGTACCTGGAGGTCTGGACAGTT ATATTCAAGAGATTATGATTCTGTAAAGCTGTGGAATGAAGCTGCAGATTTAGAGAACATTGGCTTCTGAAAAAA AAAAAGAGTGAAGATACTAGCAAGTATACTTATTTTTAAAACAGGCTAGAATCTCATGTTTTATATGAAAG 

#### 1807/2682 FIGURE 1636

ADLSTRALLILTLRPWKAMEVAANCSLRVKRPLLDPRFEGYKLSLEPLPCYQLELDAAVAEVKLRDDQYTLEHMH AFGMYNYLHCDSWYQDSVYYIDTLGRIMNLTVMLDTALGKPREVFRLPTDLTACDNRLCASIHFSSSTWVTLSDG TGRLYVIGTGERGNSASEKWEIMFNEELGDPFIIIHSISLLNAEEHSIATLLLRIEKEELDMKGSGFYVSLEWVT ISKKNQDNKKYEIIKRDILRGKSVPHYAAIEPDGNGLMIVSYKSFTFVQAGQDLEENMDEDISEKIKEPLYYWQQ TEDDLTVTIRLPEDSTKEDIQIQFLPDHINIVLKDHQFLEGKLYSSIDHESSTWIIKESNSLEISLIKKNEGLTW PELVIGDKQGELIRDSAQCAAIAERLMHLTSEELNPNPDKEKPPCNAQELEECDIFFEESSSLCRFDGNTLKTTH VVNLGSNQYLFSVIVDPKEMPCFCLRHDVDALLWQPHSSKQDDMWEHIATFNALGYVQASKRDKKFFACAPNYSY AALCECLRRVFIYRQPAPMSTVLYNRKEGRQVGQVAKQQVASLETNDPILGFQATNERLFVLTTKNLFLIKVNTE

#### 1808/2682 FIGURE 1637

#### 1809/2682 FIGURE 1638

# FIGURE 1639

MPKKFQGENTKSAAARARRAEAKAAADAKKQKELEDAYWKDDDKHVMRKEQRKEEKEKRRLDQLERKKETQRLLE EEDSKLKGGKAPRVATSSKVTRAQIEDTLRRDHQLREAPDTAEKAKSHLEVPLEENVNRRVLEEGSVEARTIEDA IAVLSVAEEAADRHPERRMRAAFTAFEEAQLPRLKQENPNMRLSQLKQLLKKEWLRSPDNPMNQRAVPFNAPK

## FIGURE 1640

#### 1812/2682 FIGURE 1641

GGCAGATCTCACGAGAGAGGATTTGGCGCCCTCCTCTGTGGATTCTGGCCAGGCCGGGTTCGGCGGTTGCTGTGA GAGCGGGCTTCCCAACACCATGCCGTCCGCCTTCTCTGTCAGCTCTTTCCCCGTCAGCATCCCAGCCGTGCTCAC GCAGACGGACTGGACTGAGCCCTGGCTCATGGGGCCTGGCCACCTTCCACGCGCTCTGCGTGCTCCTCACCTGCTT GTCCTCCCGAAGCTACAGACTACAGATCGGGCACTTTCTGTGTCTAGTCATCTTAGTCTACTGTGCTGAATACAT CAATGAGGCGGCTGCGATGAACTGGAGATTATTTTCGAAATACCAGTATTTCGACTCCAGGGGGATGTTCATTTC TATAGTATTTTCAGCCCCACTGCTGGTGAATGCCATGATCATTGTGGTTATGTGGGTATGGAAGACTTTGAATGT AGCTGCTTGGAGTTTGCGTCCTTCCCGTCCACCCAGTGCAGCTCCCAGTGCTGCAGTGTGCGTGGCGTGGGCATC GGCTTTTCAGCCAGCACTGAATGTATCCATCAGGACATGCGTCTTCAGGTGCCTGATCTTTGTAGTCAGGCTGTG GGAACGGTCTCTGCAGAGCTTCATAACTGGGAATTTGATTTGAAGAAGTCCATGTCATATGTGTAACTAGTACTA ATTATAAATATAAAATACACAATATAAAATATGAAACTCAATAATAAACAGTGCCACCTGTACATGGGCACCATG CCCTCCTCCTCGTGCTGTTTTTCTAGTGCATGCCACAGTTCGCAGTAGAGGGTGTTTTCACCTTCCAAGACATG GGGCAAAGTTTGGAGACACCTGGTTGTCACTGGAGGGGGTGGTGCTCCTGGCTTCTCCTGTGGAGCCCGGGGTGA TGCATAAAATCCTGTGTGCCTGGGTCAGCCGCATCACAGACAATGACTTGACATGAAATGTCAGCTGTGCTGGGG CAGAGAGACCTTGGAAGGAAGCTCTTGGAAAATACGTTGTATCTCAGTTTGATGAACCAATTCACAAGAGGCTAG GCCCTCTCTAGCAAAGTTATGGGCTGCTTTACTGAAAACAGAATGGAAGCCCTGAAGTCAACACTCCATGGAGAA GCGTGTCTTTCCTAATGTCCTGGTGTTCTGTTGATTTAGGTGCTTGGGAACACAATGCTCCCAGTTCTGTTAGGA CAGGCATACTGTTACTTTGCAATATCCACTTTATAAAATAGCTCCTGCCCAGTGGCTCTTGGTTCCTGTCAAATG TGGACCTGTAGTTTAAGAATGACAGGTGGTTAGAGACCCAGATATTTAAAAATAGGTGTTCAATAAGGGAATACT GATTGTGCATTGTATCTGGATAGCATGCCTAATTGTGCATTTCTGAAAGTTACCAATTCAAAATGTAATTGGAAC AGTTATCTTTGATTAGACAAGCCTGGGAAGAGAATGTTGAGGTGCAGAGCTCACCAGCCAAGTTCATGCCCCTCT CGGGCCTTTGTGGCTGAGAAGTGGGACAGAAAGATGATTAAGGTAATGTGTCCTCCCTGTAGCATTGTCCAGGGC CGTTGTGTAGATATTTGACTTCACTGACAGAAAAGAAACCAGGGAGTTTGTAGAGACTGTGCATTTTTAGTATAA AAGGGAGGGACCTGATGGGAGGTGATGGGATCATGGGGGTGGTTTCCCCTATGTTGTTATCATAATAGAGAGGGA AGAAGGTGCTTGTTTCTCCCTCTGCCATGATTGTAAGTTTCCCGAGGCCTCCCCGGCCATGTGGAACTGAGTCAA 

## FIGURE 1642

GCAGCCCCGGCGCCGAACGCCCGCGGCGCGGGACTCCATCGTCAGAAGAAGTCATTCAGAATTCAAAAGAAGTTC GTGAAGCCGAGATTATAGATGAAATCTTAAAGATCAATGAAGATACCAGAGTACATGGCCTTGCCCTTCAGATCT ACCTGGGGAAGCTGGTGCGAGGGGATGCCCATGAATGTTTTGTTTCACCTGTTGCCAAAGCTGTAATTGAACTTC  $\tt TTGAAAAATCAGGTGTCAACCTAGATGGAAAGAAGATTTTGGTAGTGGGGGCCCATGGGTCTTTGGAAGCTGCTC$ TTCACGAGGCTGACATTGTGGTCCTAGGCTCACCTAAGCCAGAAGAGATTCCCCTTACTTGGATACAACCAGGAA CTACTGTTCTCAACTGCTCCCATGACTTCCTGTCAGGGAAGGTTGGGTGTGGCTCTCCAAGAATACATTTTGGTG GACTCATTGAGGAAGATGATGTGATTCTCCTTGCTGCAGCTCTGCGAATTCAGAACATGGTCAGTAGTGGAAGGA GATGGCTTCGTGAACAGCAGCAGCGGGGGGAGACTTCACTGCTTGAAACTTCAGCCTCTCTCCCCTGTGCCAA ATGAAATTGAAATCTATGGCAAAAGCAAAGCCAAAGTACGTTTGTCCGTGCTAGAAAGGTTAAAGGATCAAGCAG  $\tt ATGGAAAATACGTCTTAGTTGCTGGGATCACCACCCCACCCTCTTGGAGAAGGGAAGAGCACAGTCACCATCGGGC$ ACACGCAAACAGATAAGGCTCTGTATAATCGGCTGGTTCCTTTAGTGAATGGTGTCAGAGAATTTTCAGAAATTC AGCTTGCTCGGCTAAAAAAACTGGGAATAAATAAGACTGATCCGAGCACACTGACAGAAGAGGAAGTGAGTAAAT TTGCCCGTCTCGACATCGACCCATCTACCATCACGTGGCAGAGAGTATTGGATACAAATGACCGATTTCTACGAA  ${\tt AGATCATGGCGGTGCTGGCCCTGACGGACAGCCTCGCAGACATGAAGGCACGGCTGGGAAGGATGGTGGTGGCCA}$ CAATAAAACCAAACCTGATGCAGACCCTGGAAGGGACACCTGTGTTCGTGCATGCGGGCCCTTTTGCTAACATTG AAGCTGGCTTTGGTGCTGACATCGGAATGGAGAAATTCTTCAACATCAAGTGCCGAGCTTCCGGCTTGGTGCCCA ACGTGGTTGTGTTAGTGGCAACGGTGCGAGCTCTGAAGATGCATGGAGGCGGGCCAAGTGTAACGGCTGGTGTTC CTCTTAAGAAAGAATATACAGAGGAGAACATCCAGCTGGTGGCAGACGGCTGCTGTAACCTCCAGAAGCAAATTC  ${\tt AGATCACTCAGCTCTTTGGGGTTCCCGTTGTGGTGGCTCTGAATGTCTTCAAGACCGACACCCGCGCTGAGATTG}$  ${\tt ACTTGGTGTGAGCTTGCAAAGCGGGCTGGTGCCTTTGATGCAGTCCCCTGCTATCACTGGTCCGTTGGTGGAA}$ CTGAGGCACAAGCCAAAATAGATCGTTACACTCAACAGGGTTTTGGAAATTTGCCCATCTGCATGGCAAAGACCC  ${\tt ACCTTTCTCTATCTCACCAACCTGACAAAAAAAGGTGTGCCAAGGGACTTCATCTTACCTATCAGTGACGTCCGGG}$ CCAGCATAGGCGCTGGGTTCATTTACCCTTTGGTCGGAACGATGAGCACCATGCCAGGACTGCCCACCCGGCCCT GCTTTTATGACATAGATCTTGATACCGAAACAGAACAAGTTAAAGGCTTGTTCTAAGTGGACAAGGCTCTCACAG GACCCGATGCAGACTCCTGAAACAGACTACTCTTTGCCTTTTTGCTGCAGTTGGAGAAGAAACTGAATTTGAAAA ATGTCTGTTATGCAATGCTGGAGACGTGGTGAAATAGGCCAAAGATTTCTTCTTCGTTCAAGATGAATTCTGTTC GTTTCCATTATTTCTACTGCTTACACTTTAGAATGTTTATTTTATGGGGACTAAGGGATTAGGAGTGTGAACTAA AAGGTAACATTTTCCACTCTCAAGTTTTCTACTTTGTCTTTGAACTGAAAATAAACATGGATCTAGAAAACCAAA AAAAAAAAAAAA

#### 1814/2682 FIGURE 1643

## 1815/2682 FIGURE 1644

 $\tt SSLLSRPTRKMAPQKDRKPKRSTWRFNLDLTHPVEDGIFDSGNFEQFLREKVKVNGKTGNLGNVVHIERFKNKIT\\ VVSEKQFSKRYLKYLTKKYLKKNNLRDWLRVVASDKETYELRYFQISQDEDESESED$ 

#### 1816/2682 FIGURE 1645

CTAACTTTGAGTCAACGCTGACTACAGCACCAGGACTGCTCACTTCCAGCTTCTGCTGACACCTGCCCTCGTTTA GTCTTTCTTGGTGGCTGCAGGTTCAGTAGAAACTCTATGCCAGGCTTTGTCTCCGGGACATAGGAGAGTGCTGGT GCTCAGTCATGTTTGTTGAATGAGTAATAAATGGTAAAGGTTGTTGCTGCCCCGAGACGCTTCAAGAGGAAGCAG CACCTGGGCTGACACAGCACGAGCACCACGTGGATGGGATGCCTGCAGTCAGCTGCAGGAGGGCCTCGTCGGGAG GCCACAGGGCCCCTCTTTTGTCTTGAATGGAGACCTCCAAGGCTCCAGGACATAAAGGGCCCTTGGCCAAGCTGTT CCTGGCCACCTGGCCACATCTCCAGCTGCACCAGTTCTCACCTCCATTCCCCACGGCCCCAGCTGTCAGGTTTTA GGGTGGCAGAGAGCTCCATGCACCCCCTGGCCTTGGCCTCTTCTGGGGCTTAGAGCTCCAGGACTTTTGGGCCTG TGCACCCTCAGCGTCCCCTCTTACGACTCCGGCGAGGACGGCCAGGTGCCTGGTGGACTCTTGCACGTGCTCAGC CACGAGACCTCATGTGCGCTGTCCTGAGCCCACCTGTGTCCTCAG<u>ATG</u>TTCCAGGTCATCCAGCCAGAGCGTGCG CTGTACATCCAGGCCAACAACTGCGTGGAGGCCAAGGACTGGATCGACATTCTCACCAAAGTGAGCCAGTGCAAC CAGAAGCGCCTCACCGTCTACCACCCGTCCGCCTACCTGAGCGGCCACTGGCTGTGCTGTAGGGCGCCATCCGAC TCGGCTCCGGGCTGCTCGCCCTGCACTGGCGGCCTCCCAGCCAACATCCAGCTGGACATTGATGGGGACCGTGAG ACGGAGCGTATCTACTCCCTCTTCAACTTGTACATGAGCAAGCTGGAGAAGATGCAGGAGGCCTGTGGGAGCAAA TCTGTGTATGACGGCCCGGAGCAGGAGGAGTATTCGACGTTCGTCATTGACGACCCCCAGGAGACCTACAAGACG CTAAAGCAAGTCATCGCTGGGGTTGGGGCTTTGGAGCAGGAGCACGCCCAGTATAAGAGGGACAAGTTCAAGAAG ACGAAATATGGAAGCCAGGAGCACCCCATCGGAGACAAGAGCTTCCAGAACTACATCCGGCAGCAGTCCGAGACC TGGGAGGGAGAAGAAGAAGAGCGCAGAGCCGGCAAAGTGAGATGCACGCCGTCCCGGCCCATAGACAAGTGG CGCTGGGGTTTCCCTCTCCCAGAACCGCTGCCACCACCGCCACGCCCTCCGCAGAAAGCCCACCTGGCCCTGTGG GTGTGGGCTGTGCCCTAGCCACACCACAGCCAGCCTCAGGGAGCCACGGCCCGTCTAGTCGACTGTGACATGCAC CTCCGGCCGTGTGTGCGTCAGTCTCGTGCACGTCTGTCTTGCGTTGCACGGTGCGTGTGACGCTGGGCTCTGTGG  $\tt CTCTGTGCCCGGGAGGCCTGGCCCCGCCTCGGCTTTCGGCTTCATCACATTGGGAGGTTCAGAGCATTACTC$ TCCCACTGTGCCTGCCATCCAGGCAGCCATGGGAGGCGGCCTCCCTGTTCCACTTTCGAGGTTCGTTTGATTCCT GGCTGAGGGGTCAGTTTTATGGCTGGGAGGTGCAGAATTACACAGAAGTCCCAGTCTGAGGATGTCCTTGGTGCT TGGGGGATACGGGTTCTGTCCACAGAGTCCCTTGGAGGGAAAGGTGTGGGCTCCAGCTTCTCCAGGCGTCTGCGG AGCCCACAGTTGAAGCCCACATCGTTTTGCTGTTGAATGGGGTTTAAAATCAGAATTAACATTTGCCACCCCCG TGGAAGTTTGAAGATTTTAAAAATAGAAATGTACATTTTTCAAGCTGTTTTTCTTTATGTTTTTTGAAGGACCATT TTTAATTAGCTCTTTGATACAAAGTAACTCAGAACGTCAAAACCTATACCCACTAAAGGGAAGGCTGCCGGGAAG GCAAATGGAACAGGAATGGAGCCTGTCTCAGGAAGGCCAGCTGCAGGTCCTCCAGAAAATCAAAGAAGGGAAGAA ACTCTGAGTTTGAGGTACAGGGGCTTCGGGGTGCAGACGTCCCTCCAGGGCCCATGGTCAGTATTGCACCTGTGT GGGTCCAGGCAGACCCCTCCAGACCTCACACTGCCGAGGAGGCCTTTCCCAAAGGGCGTCCTCCCGGGATGCAGA CGGCAGGTGTGTGGGAAGCGCCGTTTAAATACACAGCACGACGTATCCTTGTACCGACTTCTCCCGGTTCTTGTT TGAAAATACTGTAGTTCAGGCTCTTGATCTAGATGGCAGATAGGAACTTTCTTGTCACAAAAATACTGGAGGAAA ATGTTGTAAAAATAGACTTTTGGACACACAGCTGTTGGGGGCTGCACTGAGCTGCAATTTTTAACATGGATTTATA ACTTAATGTTTCTGTTTATAAAATACTAATGATTTGCAATGTATTTTACTGGCCAATTAAAACAGATGTTTTATT CTTTCTGAA

## 1817/2682 FIGURE 1646

MFQVIQPERALYIQANNCVEAKDWIDILTKVSQCNQKRLTVYHPSAYLSGHWLCCRAPSDSAPGCSPCTGGLPANIQLDIDGDRETERIYSLFNLYMSKLEKMQEACGSKSVYDGPEQEEYSTFVIDDPQETYKTLKQVIAGVGALEQEHAQYKRDKFKKTKYGSQEHPIGDKSFQNYIRQQSETSTHSI

#### 1818/2682 FIGURE 1647A

ATCGCAAAGCAACCTTCTGATGTAAGTTCTGAGTGTGACCGAGAAGGTAGACAATTGCAGCCTGCGGAGAGGCCT GACAAATCAACACAAACCCCAAGTCCTCCTTGCCAGGCCTTCAACCACTATCTCAGTGCAATGGCTTCCATGAGG CAGGCTGAACCTGCAGATATGCGCCCAGAGATATGGATCGCCCAAGAGTTGCGGCGTATTGGAGACGAGTTTAAC  $\tt CTGTTACGTTACATTGTCCGCCTGGTGTGGAGAATGCAT\\ \underline{\textbf{TGA}} \texttt{CAGGTTCTTTGCGGAGCCGAGATACCATGCAGA}$ TTGTGGAGGGGGCAGGTGACGTTTCAGAAGACACCGAGCTGGATGGGACTACCTTTCTGTTCATCACCACACAGC TTTTGGAGCAGGATTTTGTGTAAGAATGGTGTTTACATGCAGTGTGTTTTCCCCCTCACCTTCAATAAGGTTTTT CAAAAAGGAAATGGAAACTTTTTAACCAATTTGTGAATAACTTTTGTATTAAAATTTTAAGAACCTACGGCCTAT TCTCAGAGGATTATGTAACCCCTGCAGTGGAAACTGAGCCAGCTAACTTAAAAAGCTGCCTTAGTTTATTTTTAG TAAATTATTTTTAATACCAAAAGAGTTCTTTTGAAATGGAACTGATTAAAAGGGCAGAGGGTCTGTTGCCAGCCT GCATTGATATACCAGTCCCATTTGTAAATATTTACGTACCTTTATAAATTCAGTTGCATCTGTGGCAAAATTTCA GACTATTTTTGCGTCTTTCCTCATCACTTTTTGTGATGCAACTCCAGTCTGGACTCAGATGCATAGATTTGGTCC AGTGTATTTCATGATAAAGTGAAATTGAGTCAGAACAAGAGTTAATATCTGCCTGTATCTTGCACAGTTCGAGC GATCTGTTATTAACTGGGAAGCATTTGGTGTTTGGTTTTCATTCCATTTCGACGAGCATGTTATTGGGAAGTATTC TGAAGAGGCAATAGCAGTAATAACAACAGACTTAAGTGCTACGCCCCTTTGTGCTGCTGGCTTTTCTGGTTGCAG GCTTTCCCATGGTCACAGGATGCACTGTCAGCATCAGGTCCCAGAGGGCCACCGTGTCCATTACAGCAGAGTCCA GCTGCAGCATCCAGCTCACGCCCTCATGGGAATTGGCACAGGCCTGGGGGCAGGGCTTCTGATGGCCATTTGCTTG GCCTCCTGCATTTTAGTCCAACTCACAGTCCACTAGCTTCACTCCTTTAAATTCACTTTGAAACAGGCCTCATCC ATTGTCAGGCCACTTGTGACCCCAGCCATGTAGTGAGGGTGCTCTTTCTCTGTGCCTGCTCCTTATGAGTGCAGT GGGAGCAGTGAAAGTGAGGGGGAAGACAATTCTGTGAACTCTGTAACTCTTAAAATTTTTGAAAACTCCATCGT TAAACAACTTTTAAAAGAAATAACTAAATTTTCAAATGAGTAAGCAGTGCCACCAACTAGTGTTTTTGCCCGATAG AAGAGCCAGCATGTTCACGTTATTTAAATTAGGTGGAAAAATCTAAACATTTTTATCTTCATAATTTAAAAAAATA TATATGTATATATTGCATATTCACTTTTTCCTTTAGGTAGAGATGATTTCAATCCAAATACTCTTACTTTAAAAA ATTTCCTTTCCCCAAGAATCTCCTTGGGACTTTGACTTATTTTTAAAGCTGTGTTGGAGCTCATCTTGTTCCCTG ATGTGTCTCGAGCCCATTGGTAGGGTCATACAAAGCCCACGGTTACAAGCAGTGGTAGGATTGCAGCCGTGGGCC TGCTGGACACACACATACACCAAAGATGTATTTGGATCTGGGCACCCCCTCCCAGGATCCCTGTACTCACGTGCC AGTCTCCTGACTAGAGCACTTTACTCTGTTTCCTCAGCCCTGCAGCCCCTGGGAGCACACACTGGGTGCAGCCCT GGGCCAGGCACGGGAGGCCCTGCCCTGTGCTGCCCAGGGGCTGTGTGCACCACATGAGCACATTTCCCTCTGGCC TGGCGGCCTCCAGGCTGGCTGTGGAAACAGTTCCTGAGGAAATTAGAGATTCTATGAATTGTAGGAGTATTAAAG ACCAGGCTGTTGGCACCAGAACTTAAAGCGATGACTGGATGTCTCTGTACTGTATCTGGTTATCAAGATGC CTCTGTGCAGAAAGTATGCCTCCCGTGGGTATACGTTTTTACCTTTTTTAAAAAAACATTTTTGTAGAAAAAATAA TTAAATCCCCTTTTTGGAAACTTACTGCAGGTTTTGTGCCTTGACAACCTCTCCCTATGTGAGGTTTGTAAAAAG CCAACTGGTTAGTTGATCAAGAATTTTGGGGGTGGGGGTTGCGGAGAAATCAAGTTTAAAATTCCTTCTGATTAA AGGTCATATTACTTATCAACTGAGCCAAATGTCTGTGTGCAATTGTGTTTCCTTTACCTTGTAAAATTTTGTACA GCATAAATAAGTAAAAAAATCACTGTTTTTCTCAACTTTTTCAAAATCAAGGATTGTAAATATTGTAGATTCTTT AATGTCTTAATTTCTGAAAAGTATTAACATCCCTGTCTCCCACTCCCCTGCCGTCCCATGAAGTTAACTCCTGAG AGTTGTCGGGGGTGACTGGAGAGCTCATTGCAGACCACGTGGTCCTCCAGGGTGGCTCTCCACCTTCGGGTCCTG 

#### 1819/2682 FIGURE 1647B

## 1820/2682 FIGURE 1648

 ${\tt MAKQPSDVSSECDREGRQLQPAERPPQLRPGAPTSLQTEPQDRSPAPMSCDKSTQTPSPPCQAFNHYLSAMASMRQAEPADMRPEIWIAQELRRIGDEFNAYYARRVFLNNYQAAEDHPRMVILRLLRYIVRLVWRMH}$ 

#### 1821/2682 FIGURE 1649

GTGCAGTTGCGGCTCCAGGGCCATGGCGGAGGAGCAGGGCCGGGAACGGGACTCGGTTCCCAAGCCGTCGGTGCT GTTCCTCCACCCAGACCTGGGCGTGGGCGCCTGAGCGGCTGGTGTTGGACGCGCGCTGCCGCTGCAGGCGCG CGGGTGTAGCGTGAAGATCTGGACAGCGCACTACGACCCGGGCCACTGTTTCGCCGAGAGCCGCGAGCTACCGGT CATGGTTTTCCTGGCGCTCTACGTGCTGTTCCTCGCCGACGACGAGGTTCGACGTGGTAGTGTGCGACCAGGTGTC TGCCTGTATCCCAGTGTTCAGGCTGGCTAGACGGCGGAAGAAGATCCTATTTTACTGTCACTTCCCAGATCTGCT TCTCACCAAGAGAGATTCTTTTCTTAAACGACTATACAGGGCCCCAATTGACTGGATAGAGGAATACACCACAGG CATGGCAGACTGCATCTTAGTCAACAGCCAGTTCACAGCTGCTGTTTTTAAGGAAACATTCAAGTCCCTGTCTCA CATAGACCCTGATGTCCTCTATCCATCTCTAAATGTCACCAGCTTTGACTCAGTTGTTCCTGAAAAGCTGGATGA CCTAGTCCCCAAGGGGAAAAAATTCCTGCTGCTCTCCATCAACAGATACGAAAGGAAGAAAAATCTGACTTTGGC ACTGGAAGCCCTAGTACAGCTGCGTGGAAGATTGACATCCCAAGATTGGGAGGGGTTCATCTGATCGTGGCAGG TGGTTATGACGAGAGGGTCCTGGAGAATGTGGAACATTATCAGGAATTGAAGAAAATGGTCCAACAGTCCGACCT GCTTTACACACCAAGCAATGAGCACTTTGGCATTGTCCCTCTGGAAGCCATGTACATGCAGTGCCCAGTCATTGC TGTTAATTCGGGTGGACCCTTGGAGTCCATTGACCACAGTGTCACAGGGTTTCTGTGTGAGCCTGACCCGGTGCA AGTGAAGGAAAAATTTTCCCCTGAAGCATTTACAGAACAGCTCTACCGATATGTTACCAAACTGCTGGTATAATC AGATTGTTTTTAAGATCTCCATTAATGTCATTTTTATGGATTGTAGACCCAGTTTTGAAACCAAAAAAGAAACCT AGAATCTAATGCAGAAGAGATCTTTTAAAAAATAAACTTGAGTCTTGAATGTGAGCCACTTTCCTATATACCACA CCTCCCTGTCCACTTTTCAGAAAAACCATGTCTTTTATGCTATAATCATTCCAAATTTTGCCAGTGTTAAGTTAC AAATGTGGTGTCATTCCATGTTCAGCAGAGTATTTTAATTATATTTTCTCGGGATTATTGCTCTTCTGTCTATAA ATTTTGAATGATACTGTGCCTTAATTGGTTTTCATAGTTTAAGTGTGTATCATATCAAAGTTGATTAATTTGGC TTCATAGTATAATGAGAGCAGGGCTATTGTAGTTCCCAGATTCAATCCACCGAAGTGTTCACTGTCATCTGTTAG TTTTGCACACTGAGATATAATAAAAGGTGTTTATC

### 1822/2682 FIGURE 1650

MAEEQGRERDSVPKPSVLFLHPDLGVGGAERLVLDAALALQARGCSVKIWTAHYDPGHCFAESRELPVRCAGDWL
PRGLGWGGRGAAVCAYVRMVFLALYVLFLADEEFDVVVCDQVSACIPVFRLARRKKILFYCHFPDLLLTKRDSF
LKRLYRAPIDWIEEYTTGMADCILVNSQFTAAVFKETFKSLSHIDPDVLYPSLNVTSFDSVVPEKLDDLVPKGKK
FLLLSINRYERKKNLTLALEALVQLRGRLTSQDWERVHLIVAGGYDERVLENVEHYQELKKMVQQSDLGQYVTFL
RSFSDKQKISLLHSCTCVLYTPSNEHFGIVPLEAMYMQCPVIAVNSGGPLESIDHSVTGFLCEPDPVHFSEAIEK
FIREPSLKATMGLAGRARVKEKFSPEAFTEQLYRYVTKLLV

## FIGURE 1651A

GCCGACACCATGTGGATCCAGGTTCGGACCATGGACGGGAGGCAGACCCACACGGTGGACTCGCTGTCCAGGCTG ACCAAGGTGGAGGAGCTGAGGCGGAAGATCCAGGAGCTGTTCCACGTGGAGCCAGGCCTGCAGAGGCTGTTCTAC AGGGGCAAACAGATGGAGGACGGCCATACCCTCTTCGACTACGAGGTCCGCCTGAATGACACCATCCAGCTCCTG GTCCGCCAGAGCCTCGTGCTCCCCCACAGCACCAAGGAGCGGGACTCCGAGCTCTCCGACACCGACTCCGGCTGC TGCCTGGGCCAGAGTGAGTCAGACAAGTCCTCCACCCACGGCGAGGCGGCCGCCGAGACTGACAGCAGGCCAGCC GATGAGGACATGTGGGATGAGACGGAATTGGGGCTGTACAAGGTCAATGAGTACGTCGATGCTCGGGACACGAAC ATGGGGGCGTGGTTTGAGGCGCAGGTGGTCAGGGTGACGCGGAAGGCCCCTCCCGGGACGAGCCCTGCAGCTCC ACGTCCAGGCCGGCGCTGGAGGAGGACGTCATTTACCACGTGAAATACGACGACTACCCGGAGAACGGCGTGGTC CAGATGAACTCCAGGGACGTCCGAGCGCGCGCCCCACCATCATCAAGTGGCAGGACCTGGAGGTGGGCCAGGTG GTCATGCTCAACTACAACCCCGACAACCCCAAGGAGCGGGGCTTCTGGTACGACGCGGAGATCTCCAGGAAGCGC GAGACCAGGACGGCGGGGAACTCTACGCCAACGTGGTGCTGGGGGGATGATTCTCTGAACGACTGTCGGATCATC TTCGTGGACGAAGTCTTCAAGATTGAGCGGCCGGGTGAAGGGAGCCCCATGGTTGACAACCCCATGAGACGGAAG AGCGGGCCGTCCTGCAAGCACTGCAAGGACGACGTGAACAGACTCTGCCGGGTCTGCGCCTGCCACCTGTGCGGG GGCCGGCAGGACCCCGACAAGCAGCTCATGTGCGATGAGTGCGACATGGCCTTCCACATCTACTGCCTGGACCCG CCCCTCAGCAGTGTTCCCAGCGAGGACGAGTGGTACTGCCCTGAGTGCCGGAATGATGCCAGCGAGGTGGTACTG GCGGGAGAGCGGCTGAGAGAGAGCAAGAAGAAGGCGAAGATGGCCTCGGCCACATCGTCCTCACAGCGGGACTGG GGCAAGGGCATGGCCTGTGTGGGCCGCACCAAGGAATGTACCATCGTCCCGTCCAACCACTACGGACCCATCCCG GGGATCCCCGTGGCACCATGTGGCGGTTCCGAGTCCAGGTCAGCGAGTCGGGTGTCCATCGGCCCCACGTGGCT GGCATACACGGCCGGAGCAACGACGGAGCGTACTCCCTAGTCCTGGCGGGGGGCTATGAGGATGACGTGGACCAT GGGAATTTTTTCACATACACGGGTAGTGGTGGTCGAGATCTTTCCGGCAACAAGAGGACCGCGGAACAGTCTTGT GATCAGAAACTCACCAACACCAACAGGGCGCTGGCTCTCAACTGCTTTGCTCCCATCAATGACCAAGAAGGGGCC GAGGCCAAGGACTGGCGGTCGGGGAAGCCGGTCAGGGTGGCGCAATGTCAAGGGTGGCAAGAATAGCAAGTAC GCCCCGCTGAGGGCAACCGCTACGATGGCATCTACAAGGTTGTGAAATACTGGCCCGAGAAGGGGAAGTCCGGG TTTCTCGTGTGGCGCTACCTTCTGCGGAGGGACGATGATGAGCCTGGCCCTTGGACGAAGGAGGGGAAGGACCGG ATCAAGAAGCTGGGGCTGACCATGCAGTATCCAGAAGGCTACCTGGAAGCCCTGGCCAACCGAGAGCGAGAGAAG AAGCGGAAGTCGGCAGGAGGTGGCCCGAGCAGGGCCGGGTCCCCGCGCCGGACATCCAAGAAAACCAAGGTGGAG CCCTACAGTCTCACGGCCCAGCAGAGCAGCCTCATCAGAGAGGACAAGAGCAACGCCAAGCTGTGGAATGAGGTC CTGGCGTCACTCAAGGACCGGCCGGCGAGCGGCAGCCCGTTCCAGTTGTTCCTGAGTAAAGTGGAGAGACGTTC CAGTGTATCTGCTGTCAGGAGCTGGTGTTCCGGCCCATCACGACCGTGTGCCAGCACAACGTGTGCAAGGACTGC  ${\tt CAGGTGAACCAGCCTCTGCAGACCGTCCTCAACCAGCTCTTCCCCGGCTACGGCAATGGCCGG{\color{red}{\bf TGA}{\bf TCTCCAAGC}}$ ACTTCTCGACAGGCGTTTTGCTGAAAACGTGTCGGAGGGCTCGTTCATCGGCACTGATTTTGTTCTTAGTGGGCT TCTATACATTTTCAGGAATTTATGTATTCTGGCTAAAAGTTGGACTTCTCAGTATTGTGTTTAGTTCTTTGAAAA CATAAAAGCCTGCAATTTCTCGACAAAACAACACACAAGATTTTTTAAAGATGGAATCAGAAACTACGTGGTGTGGA GGCTGTTGATGTTTCTGGTGTCAAGTTCTCAGAAGTTGCTGCCACCAACTCTTTAAGAAGGCGACAGGATCAGTC CTTCTCTAGGGTTCTGGCCCCCAAGGTCAGAGCAAGCATCTTCCTGACAGCATTTTGTCATCTAAAGTCCAGTGA CATGGTTCCCCGTGGTGGCCCGTGGCAGCCCGTGGCATGGCGTGGCTCAGCTGTTGTTGAAGTTGTTGCAAGGA AAAGAGGAAACATCTCGGGCCTAGTTCAAACCTTTGCCTCAAAGCCATCCCCCACCAGACTGCTTAGCGTCTGAG ATCCGCGTGAAAAGTCCTCTGCCCACGAGAGCAGGGAGTTGGGGCCACGCAGAAATGGCCTCAAGGGGACTCTGC CGTGCAAGTGCCTTTGATTCGTTCCTTCTTTCTAAAGACGACAGTCTTTGTTGTTAGCACTGAATTATTGAAAAT GTCAACCAGATTCTAGAAACTGCGGTCATCCAGTTCTTCCTGACACCGGATGGGTGCTTGGGAACCGTTTGAGCC AGGGTTTGGTTGTTTTTGTATTTTTTTTTTTTTGAAAGGGTTTGTTAATTTTTCTAATTTTACCAAAGT

#### 1824/2682 FIGURE 1651B

### 1825/2682 FIGURE 1652

MWIQVRTMDGRQTHTVDSLSRLTKVEELRRKIQELFHVEPGLQRLFYRGKQMEDGHTLFDYEVRLNDTIQLLVRQ SLVLPHSTKERDSELSDTDSGCCLGQSESDKSSTHGEAAAETDSRPADEDMWDETELGLYKVNEYVDARDTNMGA WFEAQVVRVTRKAPSRDEPCSSTSRPALEEDVIYHVKYDDYPENGVVQMNSRDVRARARTIIKWQDLEVGQVVML NYNPDNPKERGFWYDAEISRKRETRTARELYANVVLGDDSLNDCRIIFVDEVFKIERPGEGSPMVDNPMRRKSGP SCKHCKDDVNRLCRVCACHLCGGRQDPDKQLMCDECDMAFHIYCLDPPLSSVPSEDEWYCPECRNDASEVVLAGE RLRESKKKAKMASATSSSQRDWGKGMACVGRTKECTIVPSNHYGPIPGIPVGTMWRFRVQVSESGVHRPHVAGIH GRSNDGAYSLVLAGGYEDDVDHGNFFTYTGSGGRDLSGNKRTAEQSCDQKLTNTNRALALNCFAPINDQEGAEAK DWRSGKPVRVVRNVKGGKNSKYAPAEGNRYDGIYKVVKYWPEKGKSGFLVWRYLLRRDDDEPGPWTKEGKDRIKK LGLTMQYPEGYLEALANREREKENSKREEEEQQEGGFASPRTGKGKWKRKSAGGGPSRAGSPRRTSKKTKVEPYS LTAQQSSLIREDKSNAKLWNEVLASLKDRPASGSPFQLFLSKVEETFQCICCQELVFRPITTVCQHNVCKDCLDR SFRAQVFSCPACRYDLGRSYAMQVNQPLQTVLNQLFPGYGNGR

#### 1826/2682 FIGURE 1653

**ATG**AAGGTGAAGATGCTGAGCCGGAATCCGGACAATTATGTCCGCGAAACCAAGTTGGACTTACAGAGAGTTCCA AGAAACTATGATCCTGCTTTACATCCTTTTGAGGTCCCACGAGAATATGTAAGAGCTTTAAATGCTACCAAACTG GAACGAGTATTTGCAAAACCATTCCTTGCTTCGCTGGATGGTCACCGTGATGGAGTCAATTGCTTGGCAAAGCAT CCAGAGAAGCTGGCTACTGTCCTTTCTGGGGCGTGTGATGGAGAGGTTAGAATTTGGAATCTAACTCAGCGGAAT TGTATCCGTACAATACAAGCACATGAAGGCTTTGTACGAGGAATATGTACTCGCTTTTGTGGGACTTCTTTTTTC CATACAATATTAGGAAAGACAGTGTATACTGGGATTGATCATCACTGGAAAGAAGCTGTTTTTTGCCACATGTGGA CAGCAAGTAGACATTTGGGATGAACAAAGAACTAATCCTATATGTTCAATGACCTGGGGATTTGACAGTATAAGT AGTGTTAAATTTAACCCAATTGAGACATTTCTCTTGGGAAGTTGTGCATCTGACAGGAATATAGTACTGTACGAT ATGAGGCAAGCTACTCCTTTGAAAAAGGTTATCTTAGATATGAGAACAAATACAATCTGTTGGAACCCŢATGGAA GCTTTCATTTTTACAGCAGCAAATGAAGATTATAACTTATATACTTTTGATATGCGTGCACTGGACACTCCTGTA ATGGTCCATATGGATCATGTATCTGCAGTGCTTGATGTGGATTACTCTCCCACTGGGAAGGAGTTTGTGTCTGCT AGTTTCGATAAATCTATTCGAATCTTTCCTGTAGACAAAGGTCGAAGCAGGGAGGTATATCATACAAAGAGAATG CAACATGTTATCTGTGTAAAATGGACTTCTGACAGCAAGTATATTATGTGTGGATCTGATGAAATGAACATTCGC CTGTGGAAAGCTAATGCTTCTGAAAAATTGGGTGTGCTTACATCACGAGAAAAAAGCAGCCAAGGATTATAACCAG AAATTGAAGGAGAAATTTCAGCATTATCCTCATATAAAACGTATAGCTCGTCATCGACATCTACCAAAATCTATC TATAGCCAGATTCAGGAACAGCGCATCATGAAAGAAGCTCGTCGACGAAAGGAAGTGAATCGTATTAAACACAGC AAGCCTGGATCTGTGCCACTTGTGTCAGAGAAGAAGAACACGTAGTGGCAGTTGTAAAA<u>TAA</u>

#### 1827/2682 FIGURE 1654

MKVKMLSRNPDNYVRETKLDLQRVPRNYDPALHPFEVPREYVRALNATKLERVFAKPFLASLDGHRDGVNCLAKH PEKLATVLSGACDGEVRIWNLTQRNCIRTIQAHEGFVRGICTRFCGTSFFTVGDDKTVKQWKMDGPGYGDEEEPL HTILGKTVYTGIDHHWKEAVFATCGQQVDIWDEQRTNPICSMTWGFDSISSVKFNPIETFLLGSCASDRNIVLYD MRQATPLKKVILDMRTNTICWNPMEAFIFTAANEDYNLYTFDMRALDTPVMVHMDHVSAVLDVDYSPTGKEFVSA SFDKSIRIFPVDKSRSREVYHTKRMQHVICVKWTSDSKYIMCGSDEMNIRLWKANASEKLGVLTSREKAAKDYNQ KLKEKFQHYPHIKRIARHRHLPKSIYSQIQEQRIMKEARRRKEVNRIKHSKPGSVPLVSEKKKHVVAVVK

#### 1828/2682 FIGURE 1655

GGCACGAGGGTGGCGTGGCGTGGCGTGGCGGGGTCTCGCGGCGCGCGCGCGCACCCGGAGCTGTGGACGG AGAGTGCCTCCCTCTGGCCTCAGTTTCCTCATGTTGTAGTAGCGGAGCATGGCCCGGACCGGGCCCCCGAGACCG  ${\tt CCCCGTGCAACCTCACCGCCAGCCTGGGGGCCTCAGCGACTGGGACGGGACCAAGGGGCTCGGGGATTCTCCCTG}$ CCCCGGCCCTGGTGCGTGACTGACCCTCCTGTTCCCAGAGCCCCCAGCGCAGGCCGGGATGTTCGTCCTGGTGG AAATGGTGGACACCGTCCGGATCCCCCTTGGCAGTTTGAGAGGAAGCTCAACGACTCCATTGCCGAGGAGCTGA ACAAGAAGTTGGCCAACAAGGTCGTGTACAACGTGGGACTCTGCATTTGTCTGTTTGATATCACCAAACTGGAGG CCCCAGAGTCACTGCAGCAGCCAAGTTCGACGAAGCGGAGCAGGTGTGGGTGTGGGAGTACGAGACGGAGG AAGGAGCACACGACCTCTACATGGACACCGGCGAGGAGATCCGCTTCCGGGTGGTGGACGAGAGCTTTGTTGACA CGTCCCCACAGGGCCCAGCTCAGCAGATGCCACCACTTCCAGTGAGGAGCTGCCAAAGAAGGAGGCTCCGTACA CGCTTGTGGGATCCATCAGTGAGCCAGGCCTGGGCCTTCTCTCTGGTGGACCAGCAAC<u>TAG</u>CCCTGGGGCTGGA GAGATAGTGTCTCGAGCTGGACAGTGAGGCCAAGGCCAGGATGCCCAGCTTGCCCCGCTCCTCCACCATCTA GGCCCTGCTCCTCCACTGCAGTGATGGATCCATCTGTGGCTGTTGGCCTTTGGGCCTCCACTGACCTTGACTG AAAAAAAAA

#### 1829/2682 FIGURE 1656

MFVLVEMVDTVRIPPWQFERKLNDSIAEELNKKLANKVVYNVGLCICLFDITKLEDAYVFPGDGASHTKVSLGFF DDILIPPESLQQPAKFDEAEQVWVWEYETEEGAHDLYMDTGEEIRFRVVDESFVDTSPTGPSSADATTSSEELPK KEAPYTLVGSISEPGLGLLSWWTSN

#### 1830/2682 FIGURE 1657

## 1831/2682 FIGURE 1658

 ${\tt MKLGGDRVSCQFLTATSHQWLHSVSLTQHMAQECLPSVSVSTAAIPRCWS}$ 

#### 1832/2682 FIGURE 1659

CGCTGTAATTTTCACAATATTTTAATTCTGTTCTGAGATCTACAAATATCTCTACATAACACCAAAGCCAGTGAT TTAATAAATAAGAGGAATGTATATATCGCTTTGCAAAAAAATGCCTGATACATTTATCTCTATATAAGATATTTG CCCTTTGGTTTCTTTTGCTTTGGATTTCAGCCCCCATATCATTTCTGGTAACAGAGCACAGCAATAGAATTTCTG GGAAGCAGÀCCTTGTGAATCGTGCCTGTGTCTTAATTCACAAAGGGTAAGTGAATGCCGTTGAAAAGGTGTTTCAT ACACTTACCCCAGAAATGAGAGCCTGTCTCATGCAGGAGTCGGGAGGCAGCGATGTCAGGGAACTGGGACTATGT CTTTATGACTGTGATGGTGGTAACCAAGTGGGGTGGTCCCCTCTGGGGAGCTGAGTAAGAACGCAAAGGTTTGGG TCAGTGATTAGGAAGACTATAATATGACTTTGTGCATGCCCGGGAGGGCTGCCTTGTAGAGAGGATGTGAGCAGC TTAGTCGCTCATCTGGCCCTGTGATTCAGGCTTATGGAGCGTTAAGAATAACAGCTGTCAAATGGCCTAGACATG GTTAATGCAATTTGTTGCTAGTGGAAATCCTGAATTGCTTCCTTTCTGTGATCACTGCTACTTCTTAAGATGCTT TTGATGAATGTCATCTGCCTTACAAGTTGACACCTGATAACTTCTCCCTGATGGGTTTCCGAACTGGCTGACTTA ACCAAAAAGCCAGCTCTTGCCATCTATCTTGCATTAAAAGGAATTCCTGAGGCTCCTAAGGGGTCAGCTGCCCCA CTCCTGACTTTTTTTTTTTAATGGTCTATACCTTCTGCAACATTTTTGTTTATGGCCATTTGAATAGTTGGACT TTGACTCCTCACTTGTGAATAATAGGAATATATTTTGCAGAATCTAACATAATACCCTTAAAATTCATACTGGAC AACCATCAGTGTGATGTATAGTATCTGGTGTAAACAAATTTTATTCAGCATATTAAATTATTCTGTGTTTTGCTT TTCCTTGATATGTAGGAGGTGCACCAGTACCAGTTTTTCTCTTGTGGTGGCTTAAAACGCTGATTGCCATTTGCA TTGTCTACTGAAAAGCTGTGGCAGCGAGTGGTATTATTGACCATGTGTTCTCATGTCTTTTTTGCAGATTTAAAGG TTTTATTGTAGTGTCCATTTAATATCTGCATGTGTGTTTAATCTCTGAATACCATGTAATTAAACTGATTAACTT GTGATGGTGATGGTGATTAGCACACACTAAAAACCCAATGAAGCAATTGTCTCCCTCTTCTTAACTGGAAATCAC ACTTGTGAGGTATGGTATCCATTATCAACAGTGGATTCATGATTGACTTCATATTTTGTGTATCTGGTTATAAAT TGTGTGTGCACTTTAGTTTCGTGAGCCTTGGGAAACTGATTCTACAAATATCTTATATAGAGATAAATGTATCAG TGTAGATCTCAGAACAGAATTAAAATATTGTGAAAATTACAGCTTAATAAAATGTTTATTGTAATTTTGTTATG GACTTTTAAAATATATCTCATCACTTCTAACCAAA

FIGURE 1660

MFIVILLYGLLKYISSLLT

#### 1834/2682 FIGURE 1661

GGGTGTCCGCCCAGTGCCCGAGGACGCAGGCTTTGGCACCGAAGCCCGGCATCAGAGGCAACCCCGCGGCTCCTG CCAACGGTCGGGGCCCCTCGGGGACCAGCCCTTCGCGGGGCTGCTGCCAAAAAACCTCAGTCGGGAGGAGCTGGT TGATGCGCTGCGGCCAGCCGTGGTGGACCGGAAAGGACCTCTAGTGACGTTGAACAAGCCACAGGGTCTACCAGT GACAGGAAAACCAGGAGAGCTGACGTTGTTCTCAGTGCTGCCAGAGCTGAGCCAGTCCCTAGGGCTCAGGGAGCA GGAGCTTCAGGTTGTCCGAGCATCTGGGAAAGAAGCTCTGGGCTTGTACTCCTCTCCAGCTGTCCCCAGACAGC TAGTCGCCTCCAGAAGTACTTCACCCATGCACGGAGAGCCCAAAGGCCCACAGCCACCTACTGTGCTGTCACTGA TGGGATCCCAGCTGCTTCTGAGGGGAAGATCCAGGCTGCCCTGAAACTGGAACACATTGATGGGGTCAATCTCAC AGTTCCAGTGAAGGCCCCATCCCGAAAGGACATCCTGGAAGGTGTCAAGAAGACTCTCAGTCACTTTCGTGTGGT AGCCACAGGCTCTGGCTGTGCCCTGGTCCAGCTGCAGCCACTGACAGTGTTCTCCAGTCAACTACAGGTGCACAT GGTACTACAGCTCTGCCCTGTGCTTGGGGACCACATGTACTCTGCCCGTGTGGGCACTGTCCTGGGCCAGCGATT TCTGCTGCCAGCTGAGAACAACAAGCCCCAAAGACAGGTCCTGGATGAAGCCCTCCTCAGACGCCTCCACCTGAC CCCCTCCCAGGCTGCCCAGCTGCACCTCCACCTACATCGGCTCCTTCTCCCAGGCACCAGGGCCAGGGA CACCCCTGTTGAGCTCCTGGCACCACTGCCCCCTTATTTCTCCAGGACCCTACAGTGCCTGGGGGCTCCGCTTACA ATAGTCCTCCCTCTGTTCCTGACCCCCTCACACACACTGGAAAGTGAGGGTGGGGGCTCTGCAGTCAGACAAACC TAAGATCACATCCTGGACAGGCCACTTGCTTGCTGTGGGCATTGGGCAAGTAACTTTACCTCTCTGGACTTGTG ATAATAAAAGTTCCTACCTCAAAAAAAAA

# 1835/2682 FIGURE 1662

RAVLAREMDGRRVLGRFWSGWRRGLGVRPVPEDAGFGTEARHQRQPRGSCQRSGPLGDQPFAGLLPKNLSREELV DALRAAVVDRKGPLVTLNKPQGLPVTGKPGELTLFSVLPELSQSLGLREQELQVVRASGKESSGLVLLSSCPQTA SRLQKYFTHARRAQRPTATYCAVTDGIPAASEGKIQAALKLEHIDGVNLTVPVKAPSRKDILEGVKKTLSHFRVV ATGSGCALVQLQPLTVFSSQLQVHMVLQLCPVLGDHMYSARVGTVLGQRFLLPAENNKPQRQVLDEALLRRLHLT PSQAAQLPLHLHLHRLLLPGTRARDTPVELLAPLPPYFSRTLQCLGLRLQ

# 1836/2682 FIGURE 1663

GGCACGAGGGTGAGGCCTACAGAAGCGGCCTTCAGCTGGACCTTGGTCTCCCCGCCGGACTTCGAGGGTGTC ATCGCCGCCCTGTTGGGGGTGAGCGCCGCGCGCGCTGCAGCATGCCTCACAGGAAGAAAAAGCCCTTTATAGAGA AGAAGAAGCTGTGTCTTTTCACTTGGTCCACCGGAGCCAACGAGATCCTTTAGCAGCAGATGAGAGTGCACCCC AGAGGGTTCTATTGCCCACACAAAAATAGACAATGAAGAAAGGCGAGCAGAACAGAGGAAGTATGGAGTGTTCT TTGATGACGACTATGACTACCTGCAGCACCTGAAGGAACCATCTGGGCCTTCAGAGCTTATTCCCTCAAGTACCT TCAGTGCACACAGCAGGAGAGGAGAAGAAGAAGAAACGCTAGTAATTCCAAGCACTGGAATTAAGTTGCCTTCAT ATTTTGATCCTGACATTGTTGCAGCTCTTGATGATGATTTTTGACTTTGATGATCCAGATAATCTGCTTGAGGATG ACTITATTCTTCAGGCCAATAAGGCAACAGGAGAGGGAAGAGGGAATGGATATACAGAAATCTGAGAATGAAGATG ACAGCGAGTGGGAAGATGTGGATGATGAGGAGGAGATAGCAATGATGACTATGACTCTGCAGGCCTATTGTCAG ATGAAGACTGTATGTCTGTGCCCGGAAAAACTCACAGAGCTATAGCAGATCACTTGTTCTGGAGTGAGGAAAACAA AGAGTCGCTTCACGGAGTATTCGATGACTTCCTCAGTCATGAGGAGAAATGAACAGCTGACCCTACATGATGAGA GGTTTGAGAAGTTTTATGAGCAATATGATGATGATGAAATTGGAGCTCTGGATAATGCAGAATTGGAAGGTTCTA TTCAAGTGGACAGCAATCGCTTACAGGAAGTTTTGAATGACTACTATAAAGAGAAGGCAGAGAATTGTGTAAAAAT TTACTGTAGTCCTTGAAGAAGCCAAAGAGAAGTGGGATTGTGAATCTATTTGTAGTACATACTCAAATTTATATA ACCATCCACAGCTTATCAAGTATCAACCAAAGCCCAAACAATTCGAATATCTTCTAAAACAGGAATACCTCTCA ATGTCTTACCAAAGAAAGGACTCACAGCAAAGCAAACTGAAAGAATACAGATGATTAATGGCAGTGATCTTCCTA AGCGCAAGGAACGAAGAGTGGAGAAGAAAGCTAACAAATTAGCATTTAAACTGGAGAAAAGAAGGCAAGAAAAAG AGCTGCTGAACTTGAAGAATGTTGAGGGTCTAAAGCTA**TAC**ACAGTGGAGCATACAGGGCAAGGCACTTTAT TAGGGGCTCCTCATCTTTGGTTATTGACTAGAAACTTCAGAAAGACAAAACTGTTTGCCATTTTTACTGGCAGAT AAGAGGAAAATACAATATTTGTATTATTTTTATACTAGTAAGTGTCCCCTGCCAACCATCTTGTAAATATTGTAA TACTITAATTTTAATATTATAAGCTTACATTTGCTCTGAAGTAAATGACTTCATGAATGTGAAATGTTTGATAA 

# 1837/2682 FIGURE 1664

MPHRKKKPFIEKKKAVSFHLVHRSQRDPLAADESAPQRVLLPTQKIDNEERRAEQRKYGVFFDDDYDYLQHLKEP SGPSELIPSSTFSAHNRREEKEETLVIPSTGIKLPSSVFASEFEEDVGLLNKAAPVSGPRLDFDPDIVAALDDDF DFDDPDNLLEDDFILQANKATGEEEGMDIQKSENEDDSEWEDVDDEKGDSNDDYDSAGLLSDEDCMSVPGKTHRA IADHLFWSEETKSRFTEYSMTSSVMRRNEQLTLHDERFEKFYEQYDDDEIGALDNAELEGSIQVDSNRLQEVLND YYKEKAENCVKLNTLEPLEDQDLPMNELDESEEEEMITVVLEEAKEKWDCESICSTYSNLYNHPQLIKYQPKPKQ IRISSKTGIPLNVLPKKGLTAKQTERIQMINGSDLPKVSTQPRSKNESKEDKRARKQAIKEERKERRVEKKANKL AFKLEKRRQEKELLNLKKNVEGLKL

#### 1838/2682 FIGURE 1665

TGCTGCTGACTATTGTTGGTGAAATATTTTCACCAACTAAAGGAAATAGACATGAAAAACAATGACAATATTCAA
TCACAGCAGTAAGATGGCCTTTGTGTTGCAATCCCTTCTACCCCATCAGACAGCTCCTATCTAACATTCCTCTAT
ACAGTTCATTTCTCTACAAGCATTTTCTGATTCTTAGATAACTCCAATTTTTGCTACCTTTATCTTAGACATTAA
CACTATAGCCCAAAGCATAGTTACTTTGCTAAATCAGAAAGCAACTGAGTTCTTTGTTTTCTCCTCAAATAGAAT
GGGGAACGTACACAACATTCTCTTAAGTTCTAACAGGAATACCATTGTGGTGATAGAACTCAGGGCTGCTAAGGC
AAATACTCTAGACCCATAGTTCTTTTTAGTTAGATGTATTGAAACAGACAAAAATATTAACATCAGAAAAAAGCTC
TTGCCAATTAGAGGATCTTCTTAATCTTCAGCAATTAAGTTTGGGGTTTGAGCGGGGCAGGTCATTGTTACAACA
GAAGTAAATTTGGCATCTATAGAAATCAATTATGATTTTTTGAAAGATTTATCTAAATATATCTATATAGCATCTC
TTTAATGTTAGTCATTTATAAAAATCATTTAAAATCATCTGTTAAAC
GATTATAAATAAACCATTTAAAAATTCAAGTACACACACCATCAGTGTTGGTTACTAAGAAAAA
TAGTTTCATGTAATCTGTTATGTCAGCTGTATTTTTTATAAAATCATGTCAAGAAAA

1839/2682 FIGURE 1666

MQRMSLCIVSCNLLCQLYFLLKSCQE

#### 1840/2682 FIGURE 1667

TCTCAAGAGGAAGGATGAAGCTTTTCCAAAATCACATGCCTTCATCTCATTTTACAGAAAAAATTTGTGCCTAATG  $\verb|TTAACCAAAGGAAATGGGGAGCGGCAGGGCCAGTGGGTTTTCATGGTGAACTGAGGGTTGCATCTTGGACAGGTT|\\$ GCATGTGGAAGGGACAGCAGGGTTCCCAAGGAAGCTTTGCACGGTCATGGGTAGAGCCATCCCTTCTTCATCCAT  $\tt CCTGGAAAAACTGCTTTCTCCCCAAAGTGTGTCTGAGCAGCAGATTTAAGCATGAAGTTGGTTTTGTGGGGGCTAC$ TTTCACTTGTTTGGGAGACTGAGAATGATTTTCTGCAAACAGTGAGCCAGACCATGCTGGTCTCAAGCGGCAGAG CAGTTATTAACAGAATCACAGTCTTTCTGGAGCTGCTGTCAGTCCTGTGCTGTCCTCAGGGCCTTTGCTTGGTCA GGGGCCCCACTTCTTATCCACCCTTCCCTCTACCTCACCGAGGCTGCTAGGCCCAGGTGTATTGTGATTATTTGA TGTACCTGGGAGGCCATGTCTCCCGGGGAGGCTCAGGACCTCATTGGGCTGGAATTCCACAGGGATCTCTCATTG GGTCTCTTTGGGCCTTTGGAGAGGGGAGTGCAGGGCACCACCTGGGCGAACACCTGTGCCATCCTGTAAGTCCTT GTGTGACTCTTCATCCAAGTCAACAGGGGCATGTAGGGGAAGAGCCTCAGGGGCCCATCAGGAGTCAGACCCTGAC CATCTGCCTTTTCAGTCTCTTGAATTCTGTTTATGTGGACACCCCATGTCCCGCACCACCATTGCCGCCAGCA ATGTTTGTTGCCTTGCCAATATTTGAATAGATGCTGATAAATTTGATTCTCTGGCTTATTGTGGCATTCATGATAT GTCTTTCCCTTTTCAGTTTCCATGTACTAGAGCGACTGTCAGTGTGGTTGGCAGTGACCTGTGTTTTTCATGCAT GTTTTTGTTTCAGAATAACTGGGAGATGAAACAGGAAGCTCTATGACACACTTGATCGAAT**ATG**ACAGACACCGA AAATCACGACTCAGCCCCTCCAGCACCTCTACCTGTTGCCCGCCGATCACAGCCGGAATGCAGCTGAAAGATTC  $\tt CCTGGGGCCTGGTTCCAACCGCCCACTGTGGACTCTGAGGCCTCTGCATTTGCGGGTGGTCTGCCTGTGATATTT$ TGGTCATGGGCTGGTCTGGTCCGTTTCCCATTTGTCTGGCCAGTCTCTATGTGTCTTAATCCCTTGTCCTTCATT AAAAGCAAAACTAAAGAAAAAAAAAAAAAA

# 1841/2682 FIGURE 1668

 ${\tt MTDTENHDSAPSSTSTCCPPITAGMQLKDSLGPGSNRPLWTLRPLHLRVVCL}$ 

# 1842/2682 FIGURE 1669

GTTGTTGCAATAAAAAGAATTCATTTACTCTGTTTGGGATTCTCGCCATCAAGGTTCAAAATCCCTTTATATAAC TCCCAAGAGGAGAAATTTATTAAGTGTGTGCTTTCTGGACAGCTTATTCTTTACTCTGCA<u>TAG</u>AACATTTAGGTT TTAAAAACTTAAATGTATACTGACAATTGATACATAATTATGAAGTAAAGTTGAATTCTTCCCTTCCCCTCCCCC TAATAACATTAGATCCCCTAATTGTAATTATATTGGGTTTGCACAGAACACTTTAATCTTCCCCTCACCAATGTG AAGTGAGGAATCAGGAGTCAAACTGTAGAACTAAAATTTGACTTCAGTCTAGCGTTTCCTTGGTGTTTTTAGGTT GCTTTGGTAAGTTTAGGTTTGCTATATTTCTGATTGCTTAGAATTTTGTTTTAGCCCTTTAAAATCAGATCATAA ATATGAATTCATACTTCTAAGGAATTTTCTTGCTATAAGCTGGAGTTTAGGTGATGTATAGGTTCAGTTGAGACA TTTTTGGAACAGGCAAATCCTTAGTTAACATAAGATATTTAACAGTTGAAGATAGTGTCATGGATTTTTATCTTT TTTAGCAAGTAATGCTAAGAACCACTGGCCTGAGCTACTACTCTTCAGTATACATTATTAGGATTGCATAGACTT TTTGGATATATCTTCTAGTTTAAAATTGCTTATTAAGGAATTCATTTTATAATTGCAGTGGGAAAGTAATGGTCA CCAGAAAAATGTTAAAATCTTTAGTCAAGACTAGAATTAATACAATTGTCTACACTTGTATGGCAGAAATAACCT TATAAAGTGTTTAAGGAATTCAGAGAAGGGAATGTACCAAATAAGCAACAGGGAGAAAATTAGGTAAGAAGTAAG AAAAGGATGTAGTTCTGGACAAATCCTGACTACCCAGAGGAAACTCACTGTGAGATTGCTGTTGATTTGAAGGGT GCTTTCACTAAGGTTATATTTTAAAGTAGAATAACACATGCTGAGTGTAAACTGGCTTTGGATTGGTCAGCTGCA GTAGTACAAAAACAGCATAGAATTTGAGAAAACTAAAACTGCTATGAGATAGCTATGAGAAAACTAAAACTGCTA TGAGATAGAAATGATGTAAAATTATGTGGAAAGTTTTCCCTCATATACTCACATACAGCCTTTGAAGGGCTCTGG CTCTGACCGGTTGATGGCCTTGAGCGAGATGAAATCATGAAATTGAGTCAAATCAATTTGACATTGAAATGACAA CCTAGATGTTCTGAGCACTAGCAACAAGGTATTTTAACAAGTTTAAAAGGAATTCTCTGAAAAAAGTTATAAAATTA TTCTAGGAAACATAACCATAATAGTGTTTTAAGGGACTTTCACCTGGGGATTTTATATTCATGAACAGAGTGTAT TCTGTATTTAAAATGTCTCATTTGTGGGAATTGGATGACATGTTTTTTGATAAATTTATTCACAATATAAATTGA CTTTTTATTCTAGGACCATGTGAATAATGGGTTCCATTGCACAAATACAAATATTTTAATAGCTTCTTAGGCAGT GGTGTAGACATCTTGGATATAAATAATTGTAGATCTTGTATATTTGATTTTTAAAAAAACTAGAATAAACAGAGAG CCATAATTCTCTTCCTATACATAAATGTCTTGTTTTCAAAAGTGGATGG

1843/2682 FIGURE 1670

VVAIKRIHLLCLGFSPSRFKIPLYNSQEEKFIKCVLSGQLILYSA

# FIGURE 1671

TGGATTTTAAAAGTATTGAAGAACAACAAAAACCTCTGACAGATTCCCAAAGGGTAAAGTTTACCAAAGAAATTA AAGGTCTAAAGGTGGAGATAACGCACTGTGGGCAG<u>ATG</u>AAGAGGAAGTACCGTGTCTGCAATGTGACCCGGCGGC CCGCCAGTCACCAAACATTCCCGCTGCAGCAGGAGAGCGGGCAGACGGTGGAGTGCACGGTGGCCCAGTATTTCA AGGACAGGCACAAGTTGGTTCTGCGCTACCCCCACCTCCCATGTTTACAAGTCGGACAGGAGCAGAAACACACCT ACCTTCCCCTGGAGGTCTGTAACATTGTGGCAGGACAAAGATGTATTAAAAAATTAACGGACAATCAGACCTCAA CCATGATCAGAGCAACTGCTAGGTCGGCGCCCGATCGGCAAGAAGAGATTAGCAAATTGATGCGAAGTGCAAGTT TCAACACAGATCCATACGTCCGTGAATTTGGAATCATGGTCAAAGATGAGATGACAGACGTGACTGGCCGGGTGC TGCAGCCGCCCTCCATCCTCTACGGGGGCAGGAATAAAGCTATTGCGACCCCTGTCCAGGGCGTCTGGGACATGC GGAACAAGCAGTTCCACACGGGCATCGAGATCAAGGTGTGGGCCATTGCGTGCTTCGCCCCCAAGCGCCAGTGCA CGGAAGTCCATCTGAAGTCCTTCACAGAGCAGCTCAGAAAGATCTCGAGAGACGCTGGCATGCCCATCCAGGGCC AGCCGTGCTTCTGCAAATACGCGCAGGGGGCGGACAGCGTGGAGCCCATGTTCCGGCACCTGAAGAACACGTATG CGGGCCTGCAGCTGGTGGTCATCCTGCCCGGCAAGACGCCCGTGTACGCCGAGGTCAAGCGCGTGGGAGACA CGGTGCTGGGGATGGCCACGCAGTGCGTGCAGATGAAGAACGTGCAGAGGACCACGCCACAGACCCTGTCCAACC TCTGCCTGAAGATCAACGTCAAGCTGGGAGGCGTGAACAACATCCTGCTGCCCCAGGGCAGGCCGCCGGTGTTCC AGCAGCCCGTCATCTTTCTGGGAGCAGACGTCACTCACCCCCCCGCGGGGATGGGAAGAAGCCCTCCATTGCCG CCGTGGTGGCAGCATGGACGCCCACCCCAATCGCTACTGCGCCACCGTGCGCGGCAGCACCGGCAGGAGA TCATACAAGACCTGGCCGCCATGGTCCGCGAGCTCCTCATCCAGTTCTACAAGTCCACGCGCTTCAAGCCCACCC GCATCATCTTCTACCGCGACGGTGTCTCTGAAGGCCAGTTCCAGCAGGTTCTCCACCACGAGTTGCTGGCCATCC GTGAGGCCTGTATCAAGCTAGAAAAAGACTACCAGCCCGGGATCACCTTCATCGTGGTGCAGAAGAGGCACCACA CCCGGCTCTTCTGCACTGACAAGAACGAGCGGGTTGGGAAAAGTGGAAACATTCCAGCAGGCACGACTGTGGACA CGAAAATCACCCACCCACCGAGTTCGACTTCTACCTGTGTAGTCACGCTGGCATCCAGGGGACAAGCAGGCCTT CGCACTATCACGTCCTCTGGGACGACAATCGTTTCTCCTCTGATGAGCTGCAGATCCTAACCTACCAGCTGTGTC ACACCTACGTGCGCTGCACACGCTCCGTGTCCATCCCAGCGCCATACTACGCTCACCTGGTGGCCTTCCGGG  ${\tt ACCACCAAGCACTGGCCAAGGCGGTCCAGGTTCACCAAGACACTCTGCGCACCATGTACTTTGCT} {\tt TGACATGTTT}$ TAGTGTTTAGCGATTGTGTACCGAGTGGGATTCACGAGACCAGCTACACTCAGACCAACAGATGGCCAGCCCTTC  ${\tt CGTGACAGCCATCGAACATGAGACGTCATTGATTTTATTAGATTCTCCGTTTTCCAGAATGCCTTCCGTCCC}$ AGATTTCAAACTTGGATTTTGAACTGCAGACCTGTATGAGAACCCAATGTCATAGGAAATATGGTTTGCTAAAAT CTATAAGCTGCTTATTAAAACAGAGTCCCGTGTGTCCTAAAAATCTCCTAAAACCAGTCTATGAACTCAGGGCTT TAAAACATTTTTAATTTATTTGGTCATTCAATTTACTTGTTTTTTAATACATGATTCTCTATGAAATTGATGGGCT CAAACTAGCTGTGAATCTTCTGAGAGTGAAAGCAACACAAAACACAAGTGTGGTTTTAAAGCCTTGAACATTCTG ATGTTGTCACTAAAGTTGATTTCCAGGCGATGCTCGTGTGCCCCTGGCGTGGCTCACCCAAGTTCCTCGACTGAG GGCCGGTGGCCATGCAGAGGCGTCCGCAGGTGCCGTGTTCTGCCAGCACCGCCCTTCACCCGGCCTGAACTAAGG AGCAGTGGCAGAAGGTGGGCCCCGTGTGTTTACAGCATTTCCAGGTCCAGAGAGGGTTGGCAGACAAGTGCCATTT TAATAAAAATGTATTTAAAAAAAGAAAAAAGACAATATACTGACAGTCTAATCATCAGATTTGTCCTATAGGAC TGTGACATTTATTTTCCAAAGTTTTTAAAGAATACGGGTCTGTGGTGATAAATACAGTACAATCCTTTTTCACTG 

# 1845/2682 FIGURE 1672

MKRKYRVCNVTRRPASHQTFPLQQESGQTVECTVAQYFKDRHKLVLRYPHLPCLQVGQEQKHTYLPLEVCNIVAG QRCIKKLTDNQTSTMIRATARSAPDRQEEISKLMRSASFNTDPYVREFGIMVKDEMTDVTGRVLQPPSILYGGRN KAIATPVQGVWDMRNKQFHTGIEIKVWAIACFAPQRQCTEVHLKSFTEQLRKISRDAGMPIQGQPCFCKYAQGAD SVEPMFRHLKNTYAGLQLVVVILPGKTPVYAEVKRVGDTVLGMATQCVQMKNVQRTTPQTLSNLCLKINVKLGGV NNILLPQGRPPVFQQPVIFLGADVTHPPAGDGKKPSIAAVVGSMDAHPNRYCATVRVQQHRQEIIQDLAAMVREL LIQFYKSTRFKPTRIIFYRDGVSEGQFQQVLHHELLAIREACIKLEKDYQPGITFIVVQKRHHTRLFCTDKNERV GKSGNIPAGTTVDTKITHPTEFDFYLCSHAGIQGTSRPSHYHVLWDDNRFSSDELQILTYQLCHTYVRCTRSVSI PAPAYYAHLVAFRARYHLVDKEHDSAEGSHTSGQSNGRDHQALAKAVQVHQDTLRTMYFA

#### 1846/2682 FIGURE 1673

CTGTTAATCTAGTTTGTTGCTTCCATCAGCTGCAGGAGTATTCCATAGTATGCATCCACCATAGTAAATTTATCC ATTCACCTGGTTGCCTCAAATTCTTGGCTACCTGGAGAAATTAAAACCCTTGAAGCTAGGGTTCTGAGTACAAGA TCAGTTCCACCAATTAGATTTCTTCATTTGAGATTTGGGAGGTAAAGGCTGTCTTTCTGCTGTTTTGGGTTGTTGC TGCTGGAAAGCAAGTTTATGTACATATGGGGCTTTCTGCAACAGCTTTCCAGCTTTGAAAACCTGCNNNNNNNN AAAATAAATCTACTCTGTAATAGTATAAGTTTGACTACAATAAACTGTGGTTAAGAAGAAAAATTGGCCGGGCAT NCCAGAGTAATGGTTTCTTGACTTTCTGTAGCCCTTGTTCCTTAGTCTGCTGTGATATTTATGTTGACCTTTATC ATTTTCTATTCTGAACCCCTCTTAGCATTTAATGTGAAATCTAAGAAATTAGAAGTAGAATGGCTTTTATTGTTT TGACACCTTTGAAATTATTAATAATTTTTCCAGAGCAAAAAAGCAAACACGCTCAATAAGACTAAACAAAAC AAAATATAAATGTACATCATTTAATGTCCCAGTGGCTCTATTCTACCTGTAAGAAAATGATACAAAACCACCTAA GATATTTTGAAGCCTGACAAATCAGCTTCATGGAAAAAAGGTAAAAAATGCATTTTTCAACCGAAAGGGCAGATCC AATAGAAGACCCGCTCCTTAAATAAACATAAAATGTAAAAAGTTGGAAAATTAAGAGTAATGTTCCATCTGGAAA CTGAACTTTTGTCCTTGAACTTGTGTTGGCACCAAGCCTCATACACAGTGAGCTCAATAACTGTTGGGACAAAGG AAGGAAGGACAAAATGTGTAACTTCCCAGCATCTGGGAGATGCTGTCTCTTGCCTCACTGAGTGTTCCTTTTCTT TGCTCTCATGTCATTCCCTGAGAACAATGAATTCTGGGACAGGCTAAACATCATGATGAAGTTTCTTAAACAGAC TTTCTTAGTGGAAATCCATTTAGATCTGGGTGTGCTCTATGGGGGAGTGCTGACGTCAAAGAGCAAATGTCTATAA GGGGCCCTTTTAAAATGAACATTTTCCTCATTGAGCAAGCTGGGATTCTCTAATGTAGAAATCAAGCCATCTTTA TAATTTCACTTCAGATGTTTATGTTTTTTTTTTTTTTTCCCAATGATGGTAAAAATAAAAACTACGCATTAC TTAAAGGAGTTTCCCTCACATGTAAACACTGTTAGGAAGTCTGGATTAAGTTGAAAGTCCTGTTTTAACTTTTTT TCTCTCATATACCAAACACTCTGTATTTCTCTTAAAGAAGCCCTTTAAGAGAAAGCCCTAATTTTATATCTGACA GTAAAGTTTGCTGCAAGTGTATGAGTTCAAACACATCCCTTGTTTTCTGTCCCTAGGGGAAAAGTCATGTAGTTT TAGCTTGGCTCCAGTGTTAATATTATATTCAGTAGCAGCCTTAGAAGAGTGGTCTAAGACTTGAACCTGGAGCAA TTTTTGCTTTACCAATAAATGTCCTCGGCAGAGTAAATTTTAAACGTGAAAATTATAGATCTTGATATTGAATC CATCAGTGATTCAAGAGATACACCTATTTGCCTAAAACAACCTAAGATGTATTGGTTATGGAATCATGTGTTGGA TAGGTTCTTAAGACCTGTTTCCTCAAATCTTGACACAGTTTTCAAGGGTGGCTTATTGACTTGCACGGTTGGGCA GATAATCCAGATTTACCTAAGATTGGGTAAAAAAGTCATCTGTGACTTTGCTGGCAGGGCATTTGCTAAGTGGAG TACAGGATCTAAAAGGGTTTTCTTAGAAAGGGCAATATTGTCCAATGAAGTAAGCAGAAGGACTCTGGGTTAGAA GCATCTGCACAAAAACTGGTGAGACCTACTCTCCACTGCTCTGCAGCTGGATGGCTGATGGCAGGCTGAGCAGTG GGGAAGCAGGTTTTAACAACAGGGAGTCCTTCCAGGTCACTGTATATTGAGAAGAAACATAAAACTATTGTCTGT TACATTCCGAGGTCAGCCTTCTTCTTAACGTTTTATAATATGCAAATGCCAGCTTCTGGAAAGCAAGTATCATCA TGTACCAAATGCTTTATACACCATCACATTCATGAATTTTTTTAGCATGGTCAGAACTTGTGTAAATATGTCTCTT AGATGATTTTGGGGGAGATGTGATTTTTTTCATATTTTCAAAATGCATTTCATATTCAAATAAAGTTATCTATTGAGACAACCGAAAAAAAAAAAAAAAAGCGG

1847/2682 FIGURE 1674

MILGRCDLFFIFSKCISFQIKLSIETTEKKKKS

# 1848/2682 FIGURE 1675

# 1849/2682 FIGURE 1676

MEKLRRVLSGQDDEEQGLTAQVLDASSLSFNTRLKWFAICFVCGVFFSILGTGLLWLPGGIKLFAVFYTLGNLAA LASTCFLMGPVKQLKKMFEATRLLATIVMLLCFIFTLCAALWWHKKGLAVLFCILQFLSMTWYSLSYIPYARDAV IKCCSSLLS

# 1850/2682 FIGURE 1677

# 1851/2682 FIGURE 1678

MDTLDRVVKPKTKRAKRFLEKREPKLNENIKNAMLIKGGNANATVTKVLKDVYALKKPYGVLYKKKNITRPFEDQ TSLEFFSKKSDCSLFMFGSHNKKRPNNLVIGRMYDYHVLDMIELGIENFVSLKDIKNSKCPEGTKPMLIFAGDDF DVTEDYRRLKSLLIDFFRGPTVSNIRLAGLEYVLHFTALNGKIYFRSYKLLLKKSGCRTPRIELEEMGPSLDLVL RRTHLASDDLYKLSMKMPKALKPKKKKK

#### 1852/2682 FIGURE 1679A

GAATCTTAATTACATAAATTGTAAAATGTGTTAGTCCATGAAAATATTTCTCAGTTGGTTATCACTGCAACAG GAACATTCTCTACAACTGAAACAGAATTTGATGTGAGTACAGTATCAGATGATAGTTGTGTTTATGACATTAGCT ACCTAAGTCATGATATCCCTTGACACCAAGATTATCACAGGTGGGGATAGCCATTGAATACATTCAGAGGGGAGC CCACATCATCCCCCAAAATGCTTATTATTTGTAGAGTTTATCAGAATAAAAATAGCAAACTCTAGAAATAGTGTT GGGAATAGTCCTTGAGTGGGTTTGGGAACTGTAGTTTGAGGTAATTATGATATATCCAGCCCAGCAGACGCTCAT TAACTATGCAGGTGCTGTGTTCTGTGCTAGGTACTAAGACTATAAAGATGAATTAGACACAGCTTTGCCCCTAAA GGAGTTGCCAGGTAAGGGTTAAGGGGTTAATGTAGTGTAGAGCGGTCAGTATGAGCAAATGTATGGGGGTGGGGCG GGGCATGAATCCTGGAAAGCCTTGTATGGCCCTGCAAGGGAAGCCATGTTCTGAAAGCTCCTATGAGGGGGACTG ACTGACTCTAGATAAGTAGATTGAAAGAATTAGAGGTAAAGTCAGTGCAGCAGCACTAATCACAATTAAAATAAA TGCTTTAATTTTTAAAAAGCGGAAAAACATGAAAGGACACTTCGCAAGCTTCTCAAAACTTCCTGTGATTTTGGAG GGCTATTTTGAGCAGAGTCTAGACGAAAACTGGATCTGACTGGCTCCAGAGTAAAGATCTGAGAAATGGAACCCA TATGCTTTTTAATTCAAAATTTGACGTTTCAGCATGATGATACATTCTTGCCTTTTTTCCCCCTTCCATATAGCA TTTTCCACCCCAGCAAGTCAACTCTTTTCTCCTCATGGTTCTAATCCTTCAACACCTGCTGCAACTCCTGTTCCT ACTGCATCCCCAGTCAAGGCAATTAATCATCCATCAGCATCAGCAGCTGCCACCGTTTCTGGAATGAACCTGCTG AATACTGTCCTTCCTGTGTTCCCAGGGCAGGTCTCCTCAGCCGTTCACACACCTCAGCCATCAATACCAAACCCA ACAGTTATCAGAACCCCTTCATTGCCCACTGCACCTGTTACATCCACCACTACAACCACCACTCCTGTTCCT TCCATTTTTTCTGGCCTAGTGTCACTGCCAGGTCCTTCTGCCACTCCTACCGCAGCCACTCCTACCCCAGGACCT ACACCACGGTCCACTCTTGGTTCCAGTGAAGCATTTGCTTCTACTTCTGCACCTTTCACTAGCCTCCCCTTTTCC ACCAGCTCTTCTGCTGCTTCTACCAGCAACCCAAATTCTGCTTCATTGTCATCAGTTTTTTGCAGGGCTCCCTTTG CCCTTACCACCAACATCCCAAGGCCTATCCAACCCGACTCCTGTAATTGCTGGTGGCTCTACTCCCAGCGTTGCC GGTCCACTTGGTGTGAACAGTCCATCTTTTGTCTGCGTTAAAAGGTTTTCTGACATCCAATGACACCAATTTAAT CTCTTCTGCTTCAGCCCCTAACAAGTGCTATGCCCCATCAGCCATCCCTACCCCACAGAGGACTTCCACTCCAGG GTTGGCCCTGTTCCCAGGCCTGCCGTCTCCCGTGGCTAACTCAACTTCCACTCCCCTGACATTGCCTGTACAGTC TCCTTTAGCCACTGCTGCATCAGCTTCCACGTCAGTGCCAGTTAGCTGTGGCTCCTCAGCCTCCTTTTGCGTGG CCCCCACCCAGGTACCTCAGATCTGCATATTTCATCTACCCCTGCTGCAACAACTCTTCCTGTTATGATCAAAAC TGAGCCCACAAGTCCTACTCCCTCGGCCTTCAAAGGTCCATCTCATTCTGGGAATCCCTCTCATGGCACTTTAGG TTTGTCAGGGACATTGGGCCGTGCATATACTTCAACATCCGTGCCCATCAGTTTATCTGCTTGCCTTAATCCTGC ATTGTCAGGTCTCCAGCTTGAGTACTCCTTTAAATGGTTCAAATCCTCTTTCCTCTATTTCCCTTCCACCACA AACTGGCAACCCATCTCTTAATCCGTCAGTATCTCTCCCAGGGTCATTAATAGCCACCTCATCTACCGCTGCCAC CTCCACATCTCTCCTCATCCTAGCTCAACGGCAGCTGTTCTCTCAGGGGCTTTCTGCTTCAGCACCAGTCTCAGC AGCACCTTTCCCCCTCAACCTGTCCACTGTTCCCTCACTTTTCTCTGTTACTCAAGGACCTCTGTCATCTTC AAATCCCTCCTATCCAGGCTTTTCTGTCTCTAATACCCCAAGCGTTACCCCTGCTCTTCCCTCATTCCCGGGGGCT GCAGGCGCCCTCTACAGTCGCAGCTGTCACACCACTACCTGTGGCTGCCACAGCCCCATCCCCAGCTCCAGTCCT CCCAGGATTCGCCTCAGCATTCAGTTCCAATTTCAACTCCGCTCTTGTTGCACAAGCCGGTTTATCATCTGGACT ACAATCATCCTTGCAAGAATTACAGCATAATGCGGCTGCGCAGTCAGCATTGTTACAGCAGGTCCATTCAGCTTC GGCTCTGGAAAGCTATCCAGCTCAGCCTGATGGGTTTCCTAGTTATCCTTCAGCGCCAGGAACACCATTTTCTTT GCAACCAAGCCTGTCCCAGAGTGGGTGGCAGTGAATACTTTTAACTTTTATTCTCCTTCAGAGCAACATCAGAAT TGCCTGAGAACTGCAATGAACAATCTGACAAATGTGAAGCTGGCCAAAAGTCGGAAAATGAGAATGAGGGTAATC CTGGAGAAATTGTGACAACAATTTGAAAATTGTGGTTGCATTTTAAAGTGTGAACACTCCCCTATGTAAATATGC TGACAATAAATTGTATGGAGAATGGTATTTAAAAAGTGTTTTGGAGACTTTTCACCTGTCCTATAAAATTTTGAAT

#### 1853/2682 FIGURE 1679B

TGTGTATGTGATCTACATAGAAAGAATATTAAAGAGTAGGTTGAACTCTTTATAGCCGAATACAGCCTTAAATAT GCTTGTATAGCATCCACTGGCAGAAGTAATAGTTGTGCCTCAGACTTGGGGGTTGCATGTGGCCCTGGGGGAGTT GAACTTGAGACCCACAGTTATTCTTAATTTCTGATATTAACAACCGTACATACTGCTGAATTTAACTCAAAATAT TTCAGGTAAGTGAAAGTGGTGCTTAATGTAGACTATAGAATGACTTTCAGGTGTTTTCAACTGAAAGTATATATC CAGAACTGCATCCTTATAGAAATACAAGTAAGACTTAGGATAATTTGCCTTCAAAACAGTTTTCCTAATCTCAGC GTGAATGTTTACAATTATGGGATGTAGTATTTCTATTTGTACTTTAAGTCAAATGCTTATATGAAATATGTGACA ACAAATAGAGAAGACTGGCTCTGTTAGTAATTATGCAGTATGTACTCTATTTAAGGATCTGTGGTAGTATAACAT CTGTGATTAAAAGTGTAAACTATAGACTCTACTGTAGTACATTTCAGGATCTAGAAGTTTTACTTTTATAAAGAT GGTGTCCGGAAGATGTTGCTAATGTATTTTACTTCAACATAGGGAACAAACTTTTTAAGTATATTAATAAACCTG TATGGTTAGTTTTTAACAGTTTTTTAAAATAAACTATGGATATGACAAATATTCTGTGTTTTACTAAGTGCTTGG ATAGGCTTTCTAATTTTGTATACGTGCTAGAGTTAATTATTGAACATTTTTATCCAAATTTAGTTGTAACTCTGT TTATGTCTTTAAACACAGAATGTAAGCTATAGTTTAATCTGATACCAGTTGCTGGAAGTTGCCATTTGTTTTTCT TAAATCTATACCCATAAAACTTCTTTTAAGATTAAAAAA

# 1854/2682 FIGURE 1680

MIHSCLFSPFHIAFSTPASQLFSPHGSNPSTPAATPVPTASPVKAINHPSASAAATVSGMNLLNTVLPVFPGQVS
SAVHTPQPSIPNPTVIRTPSLPTAPVTSIHSTTTTPVPSIFSGLVSLPGPSATPTAATPTPGPTPRSTLGSSEAF
ASTSAPFTSLPFSTSSSAASTSNPNSASLSSVFAGLPLPLPPTSQGLSNPTPVIAGGSTPSVAGPLGVNSPSFVC
VKRFSDIQDTNLINSSALSSAVTSGLASLSSLTLQNSDSSASAPNKCYAPSAIPTPQRTSTPGLALFPGLPSPVA
NSTSTPLTLPVQSPLATAASASTSVPVSCGSSASLLRGPHPGTSDLHISSTPAATTLPVMIKTEPTSPTPSAFKG
PSHSGNPSHGTLGLSGTLGRAYTSTSVPISLSACLNPALSGLSSLSTPLNGSNPLSSISLPPHGSSTPIAPVFTA
LPSFTSLTNNFPLTGNPSLNPSVSLPGSLIATSSTAATSTSLPHPSSTAAVLSGLSASAPVSAAPFPLNLSTAVP
SLFSVTQGPLSSSNPSYPGFSVSNTPSVTPALPSFPGLQAPSTVAAVTPLPVAATAPSPAPVLPGFASAFSSNFN
SALVAQAGLSSGLQAAGSSVFPGLLSLPGIPGFPQNPSQSSLQELQHNAAAQSALLQQVHSASALESYPAQPDGF
PSYPSAPGTPFSLQPSLSQSGWQ

#### 1855/2682 FIGURE 1681

AACCTACCTCAGTTTCAGAGAATGAAGGCATTTCAACCATACCAAGCCCTGTGACCTCACCAGTTTTGTCCCGCC GACACTATGGAGAATCTATAACAAATATAGGCAAAGCATATTAGGGGCTGCTAGCATTGGAAAGGGACTTG GAGGAATGTTGTTCTCAAGATTTGGACGTTCATCTACAACACAGTCATCTGAAACATCAAAAGACTCAATGGAAG ATGAGAAGAAGCCAGTTGCCTCACCTTCTGCTACCACCGTAGGGACACAGACCCTTCCACATAGCAGTTCTGGCT TCCTCGATTCTGCATATTTCAGACTTCAAGAATCGTTCTTTAATCTCCCACAACTTCTTTTTCCGGAAAATGTAA GCCGCTATTGGTCAGCTGTCACGTCGCATACTGCCTATTGGTCATCCTTGGATGTTGCCCTTTTTCTTTTAACCT TCATGTATAAACATGAGCACGATGATGATGCAAAACCCAATTTAGATCCAATCTGAACTCTTGAAGGACATGAAT TGGATGTGAAGAAGGTTTGGGTAAACTGCATGTAAAGGCTACAAATCACAATCTGATTCCTCCCAAATATAAAGG CATATGGAACATAATGTATTAACCAAAGTATGTTATAAATCAAAAATGGTCAAGGTTCAGCATATTCTATATGAA GATCACAAGGTGGTATCGTTTTAGATTTCTATGAAGGCTTTCATTTGTACATCCCTTTGAAAAAATATAACAGAT TTAAAATGTTTTGAATTTAACTTGTTTAGAAAAACTAATGCTTAAAACAATATTTGAACTACTGTATTTATAATT TATTACCTCTAATTGCTTTATTTCAGTGTATGAGACATTACTGTTTTAATGTTTTGCTTTGAACATAATTTAAGAA CCAGATTTATTTTCTATAGTGATAAACCCTTTTTTCTCAGAACTCCATCTTTGTACTCTTCAGATGAATATATAG 

# 1856/2682 FIGURE 1682A

CTGGCTTCAAAGCTCAGCGACCACACTGCTAATTAAGAATGCTTATGAAGAATGTTTAATGATATGAGGAAGACT TTTCAATGGTAGTATAATAGAATATTAAAATTTACTTTTATTTCATTCTAAATTTTCTACATTCTGCATGTATTC TCTTTATAATCATTTTGTAAACTCAGAATACTGTTGTAAAGATGTCAGCTCCTTCCCGAGGAAATACCACTAGTT AGACTTAATACACACATTTTTTTTTTTGTTGAATTGAAATTTTACTTGGTAATGAATCATTCCCTTTAATCTACTCT TCTAGATTACTGATCTCATTACCCAACTATCTGATGCCATCTTCGGTTGGACTGCTTCCTACCCAGCTTCTGA  ${\tt ATTCTTACTTGGGTACCACCCTGCGGACAATGGAAGATGTCATTGCAGAACAGAGTGTTAGTGGATATTTTGTTT}$ CTATTGTAGCTTGTGAAATGGAACTGAAATCTTCTCTGGTTAAAGGCAATCAACCAAATACCAGTGGCTCTTCAT  ${\tt TCTACAACAAGAGGACCCTAACATTTTCTGGAGGTGGAATCAATGTTGTA}{\tt TGA}{\tt TTCTAATGAGATACGTGATTGT$ CAAGAGCCTAGTGTGCTATCTAAGGTCTAGCAGTCACTTCACTAGTGGGCAGAGACAAGTTCTAATTGTATTACA GTAAGTGTAAATGTAGATGCAAATTTGGCTGCACCTCTTTATCATGCCTGTATTGGCCTATAGGTCTGCACTTTA GTGTTTTTAATTGTTTTATTTCTGTGTATTTACGAACAGAGAAATAACCCAAATATTATTTCTGCTTAGTGTCT TTATTTATAAAGCCCATGAGTAGTTTGTATGCATCTTTCCTACTTGTAAAGATGAGTAAAAGTATGCAGTTTTAA TGTTTTATTGTTTAAGTGGGACCACTTAGCTTCCCGTTTCCTTACTAGTTAAAGAACAGACATTAATTTTCAGTT GAATGTATTTTTGCAGGCATCATATTGTTACAGGGCCATTTACACCTATTCACAAAGCTTAAATCCTACCTTGTG GGACTGAAGTGCTCTTAATATAACTGTTTATTTTCACTGTGTAATATGCAAAGCAAAAGGGAAATTATTTGGTGG  ${\tt ATGGTAGCTCAAAATTGGAACTCTTGTTCTAATTCAGTTACATTGGCTTTACCCTCCTTAGATTTTTCATCAAAG}$ GGCTGTCCCATTGCAATCTTACTAAAACATTTTGTTAAAATAAACTCTTTTCCTTTTTATATTAATAATTAGGCT  $\tt TTTAAATAAAGATGTTATTCCTTTAAAATGGTGGGCTTACCATCATTGAAGATGTCACTCAGGTGGCCTTGTTTG$ ATAGTCTTCAGCTTTAAAACTATAAATATGCCCAAATTTTGTTATTTGCCCTACTTTAAGTAGGTTTATTGTGTT TG<sup>'</sup>TAGCATGAATCAAATGTATTAATAAGCACTTATGACTATAGAATATAATTTGGCATATGATTCATATTAC  ${\tt ATGCAAATTITCTGGTAGGTATCTCTTTTTTTGCTATGATGATTCCAACTTATCAGAGACCTCCCATTTGCCTTT}$ TCATTACGGTGAAAGCTTTGCCCTCATCTACTAAAGTACAAAGGAATTCTTTGGAAGCAGATTATTCTAGTCTTA TGCTAGAGATGAATTTGATCATTTTAATGTGTGATCTTTTTGCTCTATCAGGTATAATTGTTTTCCTTTCCTTTA TAATGGGTAAGTTTCTCACCTTTGAGTAACAGTAAAGTTCATTTATATGTCCATACCTAGAAGACCAGTGCAAA  ${\tt TACTITGAGAGCACCTGGGTCTACAGGACATAATTGGCATCTAAATCCTCATTTCTTGCTATTAGTAGGAAAACA}$ CTAACCTGACAACCTTTTTCTTGTGCTTCTTGTTTGTTGGTTAGTTTTTGTGAAAGGAATCATTGTTTAAGATCA TTCACCAAATGAATACATTTTGGTAGTTTGTAATGAGTTCTTCTAATTGTTACACTTTGCTTGGTACTTAACAAT AAATATGTAAAGGTAAAAGAAATAATTTTCTGTATTCTGCCAATCTTAATTTATATAAATCATCCATTTTT CAGCATCCAAGTAAACAATAGTCCCTTATAGTCCTGCTACTTGATGGGTAAATTTGGTTGCTGGGTTTTTAAGTT GCACTCACAATAAATCGTGCAAAGCATTGTCATGCCTTATTTACTCCATTTTTAATCCTGCATCCCAGATTTATG TCCAGTCATGTATATTATAGAAATGAAATGTCAAATTTCTCAGACTGTTAAAGTGCAGTATAAAGTTGCTTAAT GCACACTTAAAAATGATATATATTTCTGAATCCTATGAAATATGTGTTCTTTTTAATTCTTTGGGAGTTTTCT TAAGTTTTACATGTTTTTTGGTTTATTGTTAATGATTTTGTTTACTCTTTGCCAAATTTTGTCATGTAGGTTATT TTACAATAGCACCTTTAAAAAAAATGTATATGCTAATTTACTAAGCATATTCATGTCCATTTTTATTTGATCATC TGATTTGTGAAATAACTTGAAATTTGTACTGTTTGGTTTGTGAAAATAATATTACCAAATCTCTGTCATTAGAAT 

#### 1857/2682 FIGURE 1682B

AGCTACACATGCTTTTAGGTGGCTTTTCCCTGATAGGGTCAAGTATATGACTATAAAACATTTTTCTTGTGAAGC
TATTAAGTTCATTAGTTACTCTTATTTCCCCTTGTTGTAACTAAGTGGTGCAGGTATAAGCATATCCCCAGCATT
CCTGTGTGTGTGAATGTGCACTGCTGATTTGGACTGTTCTTGAGAAAGGTGCTGTGACATATGTCAATATTTGTT
AGCTCTGGGGATATCTTTAGAATGCTTGAGAAAGTTGCTAGGTGTGTGCCACATTGGTGCAGGTAAATCCATGCT
GTTCACAGCCAAGCAGCATTTGCAGAGAAAAAGGAGAGTTTTACATAGACCCCAGGAAAAACAGTACTAACCTGGT
TGATGGCCTTGGTGGTGGAATTTTGTTTCAGCCAGAGGCTACTCATTATATCAGAATGATGTTCAGTATAACACT
ATCTGATTTTTAGATTGGTCGATTTCTGTTGTAATCAAGTATTTAAGATCTTTTTTAAAGTCATTGCTTTA
ATCTGAAAAGCCATTAGAAGGGAGAGGAATCACTGTTCCACAGGATATTTAAAACTCAGGAGTTCAAAATAACCTC
ACATATTGAACATAAACTGTTAACTTATTCCACAACTAAATTCTAACCTGATACTTATGAATTGCAAAGTGATTG
CTGCAAACTTTTTCTAAGGTGGCTGAAGAATTAAAATAGATCATTCTAAAGGGAAAATCAGTAAAAAG
ATTGGTATCCAAAATCACTTGTGTGCCTGAGAAAATAAAAGGTAATATTTTACTTTCAAAAAA

# 1858/2682 FIGURE 1683

 ${\tt MASSVGLLPTQLLNSYLGTTLRTMEDVIAEQSVSGYFVFCLQIIISIGLMFYVVHRAQVELNAAIVACEMELKSSLVKGNQPNTSGSSFYNKRTLTFSGGGINVV}$ 

# 1859/2682 FIGURE 1684A

CAATGCTACATATGTACAGCCTAGAAGAAAACAGAGAGATGAGCAGCTTCTGACAAATGTCCTGGAAAACACTTCG TTGGAGGACTAAAGATGCAGGATTGGGTGTTTACTCATTGGCACTCCTAAATAATGTCAGTTACAATGTGGTGGA GTTTTCTAAGTCCCAGGTAGAATGGATGAGTGATAAATTGATGAGGATGTTTTGAAGACAAAAGAAATAATCCGTT TCAGTTTCGCCATCTCTTTATGTCATGGTCTTTCTGACTTGGCCCGTGTACCTAGCCCTAAAGTTGTACTTGC CAGCCAACCTGACCTGGAATGCGGATTTTCAAGGGATCTCTTTATTCAGTGGTGTCAGGACCCTAAAAACTCAAT CATTCTAACCTACAGAACTACTCCTGGGACTTTAGCACGTTTCCTAATTGATAATCCTTCTGAAAAAATTACAGA AATAGAGTTGAGGAAACGTGTGAAGCTTGAAGGGAAAGAACTTGAAGAATACTTGGAAAAAAGAGAAACTAAAGAA AGAAGCTGCCAAAAAGCTTGAGCAGTCAAAAGAGGCAGATATAGATTCCAGTGATGAGAGTGATATTGAGGAAGA TATTGACCAGCCATCAGCTCATAAGACGAAGCATGACTTGATGATGAAAGGTGAAGGCAGTCGTAAAGGAAGTTT TTTGACAAATGGAGATGAACCTATGGATCAGGATTTATCTGATGTTCCTACTAAATGTATTTCTACAACAGAGTC TATTGAAATAAAAGCCCGGGTTACCTACATAGACTATGAAGGACGCTCTGATGGGGGATTCCATTAAAAAAATCAT TAATCAGATGAAACCACGACAGTTGATCATCGTCCATGGCCCACCAGAGGCCAGTCAAGATCTGGCAGAGTGCTG TCGCGCCTTTGGTGGGAAAGATATTAAAGTGTACATGCCAAAGCTACATGAAACAGTTGATGCCACTAGTGAAAC TCACATCTACCAGGTGAGGTTAAAAGACTCACTTGTCAGCTCTTCAGTTTTGTAAGGCAAAAGATGCTGAATT AGCTTGGATAGATGGTGTCTTAGATATGAGAGTTTCCAAAGTGGACACAGGGGTTATTTTAGAAGAAGGAGAACT AAAGGATGATGGAGAGACTCAGAGATGCAAGTGGAAGCTCCCTCAGATTCTAGCGTTATAGCACAAAAAAGGC CATGAAAAGTCTGTTCGGAGATGATGAAAAAGAAACAGGTGAAGAAAGTGAGATCATTCCTACTTTGGAACCCTT CTTACGGGAGGGGATTCAAGCTGAATTTGTAGGAGGTGTACTTGTTTGCAACAATCAAGTAGCAGTCCGCAGAAC GGAAACTGGACGCATTGGATTAGAAGGCTGCCTTTGTCAAGATTTTTATAGGATAAGAGACCTTTTATATGAACA  ${\tt ATATGCCATTGTA} {\tt AGAGACATGATGTCAAGAAGTATCTGCTTGACCTTTCTAAGAAAAAGGGATTCTTATCTT}$ ACTCTGAGCTTTTGATGTTTTGTTAACATACAAAAAGAATCTGCCAGAAAAACTTACATGTATCAGATTTT TAAAAATATAAATAGAGAACATTTTGCAAATGCTCAAATGAGCATTCTATCTTTTGGCTTTCAGAGTGATAGAGC TCCTAACAGGTGTACAGGCCCAAGAGTTGAAGGTGATTGGTTTTCTTTACAGACTCCTTGTTCTCTAGAAGGGCT TTTTACTTGAATAAAACAATGCAACTTAGCAAACCAATTTATGGCCTTAGAGAAACATTTTTGCATGAGTTCTTA ACTGATAAAACAGTTTTTCGAAACTTACTTTTAAAAGCATACGTGCTATGACTCTCCCAGTTTGAATATGCAAT TGTTTTCACAGGCAGGATGTCTGTTTTCTGCCTGTATTTCCCAGTGATTTACTCTAGGGTAAGGTAGTACACATT TGGTTCAGAAATTAATTTTTATTTCTCCTATATCTTGTTTTATCAAGATTTTGTTGTGGCATTTCAATGTAAATT ATAACACCATCATTTGAGTATACATAATTCAAAAGAACTACTTGATGCAGTATAGTCTTAAGGGTTCTGCATACA TTTTAGAAACATCTTAGCCGTAAGTTAGGTCCTGTGTTAAACTGTTTAGTGCTCTGTTTTTAAGAAAACAAATGT GTCTCCTAAGGTCACCCAAGCAGTGGTTGGATTTTATACACATTACTACTAAAATAATACTGAAGTTGGATAAGG TTATCCTTTCTGTATTTGCGTCTTTCTTGTGACTAACCACCCTGATATAGTATTAACCACTGTGTTCAAGAGTAA AAACAATATATGCAATTTTCATTGAACTTAAAGAGTGAAAACCATGTAAACTATTGAAACTATTGTAATCCATTA ATGCTTTTTTAGAATGGCAGACCTTGATGTTTATTTCTCAAATGGTTAAGCCCTCTTCTTTACTCTTAATTTTTT TTTGAGACAGAGTCACCCAGGCTGGAGTGCAGTGGTGAGATTTTGGCTCACTATAACCTCTTCCTCCAGGGTTCA AGTGATTCTCCCACCTCAGCCTCCCAAGTAGCTGGGACTACGGGCACATGCCACTGCACCTGGCTAATTTTTATA TAGGCCTCCCAAAGTGCTGGGATTACAGGCATGAATCACCACAACTAGCCTACCCTTAGATTTTTGGAAGGATCG ATCTTATTTAACTATGTGTGGAACAACCCAGTAATATCAGACTCGAATTACTATTTCATTCTATTTCAAATGCTT ATAAAGCTACTATTGTAGATTATAGTGTTAATGCAAAGTTTACAGACTTTTGATATGGAAAAACCAGATAAAACAA TGTTACAAAAGGCAAATATAAAGAGTATGTTTTCTTTTTAGTGCTTTGGAAAAATTTCACTTAAACTCTTATTAC TGTATAGATTAAGCCCTATAATGCTATTTATATTCCAGGGGAACGAAAATCTGAATTTGTTTTATGATTTAAAGC ATCTGGTTTGCATATTGTATTGTAATACTGATACAGTTTGGCTGTGTCCCCACCAAATTGAATTGTGTTAATAGT

# 1860/2682 FIGURE 1684B

# FIGURE 1685

NATYVQPRKQRDEQLLTNVLETLRGDGNVLIAVDTAGRVLELAQLLDQIWRTKDAGLGVYSLALLNNVSYNVVE FSKSQVEWMSDKLMRCFEDKRNNPFQFRHLSLCHGLSDLARVPSPKVVLASQPDLECGFSRDLFIQWCQDPKNSI ILTYRTTPGTLARFLIDNPSEKITEIELRKRVKLEGKELEEYLEKEKLKKEAAKKLEQSKEADIDSSDESDIEED IDQPSAHKTKHDLMMKGEGSRKGSFFKQAKKSYPMFPAPEERIKWDEYGEIIKPEDFLVPELQATEEEKSKLESG LTNGDEPMDQDLSDVPTKCISTTESIEIKARVTYIDYEGRSDGDSIKKIINQMKPRQLIIVHGPPEASQDLAECC RAFGGKDIKVYMPKLHETVDATSETHIYQVRLKDSLVSSLQFCKAKDAELAWIDGVLDMRVSKVDTGVILEEGEL KDDGEDSEMQVEAPSDSSVIAQQKAMKSLFGDDEKETGEESEIIPTLEPLPPHEVPGHQSVFMNEPRLSDFKQVLLREGIQAEFVGGVLVCNNQVAVRRTETGRIGLEGCLCQDFYRIRDLLYEQYAIV

# FIGURE 1686A

GCAGGATGTGATGGAAATGAAAAAAAACAAAGGTTCGCCTAATGAAACAAATGAAAGAAGAACAAGAGAAAAGCCAG ACTGACTGAGTCTAGAAGAAACAGAGAGATTGCTCAGTTGAAAAAGGGATCAACGTAAAAGAGATCATCAACTTAG  ${\tt GCAAGTAAGACCCATGTCAGATAAAGTGGCTGGGAAAGTTACTCGGAAGCTGAGTTCATCTGATGCACCTGCTCA}$ GGACACAGGTTCCAGTGCAGCTGCTGTCGAAACAGATGCATCAAGGACAGGAGCCCAGCAGAAAATGAGAATTCC TGTGGCGAGAGTCCAGGCCTTACCAACGCCGGCAACAAATGGAAACAGGAAAAAATATCAGAGGAAAGGATTGAC TGGCCGAGTGTTTATTTCCAAGACAGCTCGCATGAAGTGGCAGCTCCTTGAGCGCAGGGTCACAGACATCATCAT GCAGAAGATGACCATTTCCAACATGGAGGCAGATATGAATAGACTCCTCAAGCAACGGGAGGAACTCACAAAAAG ACGAGAGAAACTTTCAAAAAGAAGGGAGAAGATAGTCAAGGAGAATGGAGAGGGAGATAAAAATGTGGCTAATAT CAATGAAGAGATGGAGTCACTGACTGCTAATATCGATTACATCAATGACAGTATTTCTGATTGTCAGGCCAACAT TCAAATTAAAGTACTGGAAGGTCGACTCAAACAAACAGAAATAACCAGTGCTACCCAAAACCAGCTCTTATTCCA  ${\tt TATGTTGAAAGAGAAGGCAGAATTAAATCCTGAGCTAGATGCTTTACTAGGCCATGCTTTACAAGATCTAGATAG}$ GATGGAATTGCTGTATGCAGATAGCAGTGAACTAGCTTCAGACACTAGTACAGGAGATGCCTCCTTGCCTGGCCC TCCAGAGCCTTCTCCTGTAACAAGGAAAAGGCATATGAGAAAGCAGAAAAATCAAAGGCCAAGGAACAAAAGCA CTCAGATTCTGGAACTTCAGAGGCTAGTCTTTCACCTCCTTCTTCCCCACCAAGCCGGCCCCGTAATGAACTGAA TGTTTTTAATCGTCTTACTGTTTCTCAGGGAAACACATCAGTTCAGCAGGATAAGTCTGATGAAAGTGACTCCTC TCTCTCGGAGGTACACAGATCCTCCAGAAGGGGCATAATCAACCCATTTCCTGCTTCAAAAGGAATCAGAGCTTT TCCACTTCAGTGTATTCACATAGCTGAAGGGCATACAAAAGCTGTGCTCTGTGTGGATTCTACTGATGATCTCCT TCATCCCAACAATGTCGTGTCTGTAAAATACTGTAATTATACCAGTTTGGTCTTCACTGTATCAACATCTTATAT  ${\tt TAAGGTGTGGGATATCAGAGATTCAGCAAAGTGCATTCGAACACTAACGTCTTCAGGTCAAGTTACTCTTGGAGA}$ -TGCTTGTTCTGCAAGTACCAGTCGAACAGTAGCTATTCCTTCTGGAGAGAACCAGATCAAATCAAATTGCCCTAAA  $\tt CCCAACTGGCACCTTCCTCTATGCTGCTTCTGGAAATGCTGTCAGGATGTGGGATCTTAAAAGGTTTCAGTCTAC$ AGGAAAGTTAACAGGACACCTAGGCCCTGTTATGTGCCTTACTGTGGATCAGATTTCCAGTGGACAAGATCTAAT CATCACTGGCTCCAAGGATCATTACATCAAAATGTTTGATGTTACAGAAGGAGCTCTTGGGACTGTGAGTCCCAC  ${\tt CCACAATTTTGAACCCCTCATTATGATGGCATAGAAGCACTAACCATTCAAGGGGGATAACCTATTTAGTGGGTC}$ TAGAGATAATGGAATCAAGAAATGGGACTTAACTCAAAAAGACCTTCTTCAGCAAGTTCCAAATGCACATAAGGA  $\tt TTGGGTCTGTGCCTTGGGAGTGGTGCCAGACCACCCAGTTTTGCTCAGTGGCTGCAGAGGGGGCATTTTGAAAGT$ CTGGAACATGGATACTTTTATGCCAGTGGGAGAGATGAAGGGTCATGATAGTCCTATCAATGCCATATGTGTTAA TTCCACCCACATTTTTACTGCAGCTGATGATCGAACTGTGAGAATTTGGAAGGCTCGCAATTTGCAAGATGGTCA GATCTCTGACACAGGAGATCTGGGGGAAGATATTGCCAGTAAT<u>TAA</u>ACATGAATGAAGATAGGTTGTAAACTGAA AACTGGAAAATATATCTGAATTCAACTGCTGACTATAAATGGTATTCTAATAAAATTGTGTACTATCCTGTGTGC  ${\tt TTAGTTTTAAGATCAACCAATAGATATATCCTACAATTGATATATTGCTTTATTCACACTTTTATTGTGGCTG}$ AATTTTTGTGCCTATCTATAAAACACACTTTCAAATTATTTGAATTACCAAGACGTCTGCTTTTGTGACAGTCAG ACTAAATATTGAAAATGTTAGTCAAATTGTGGTTTGCTTGTCAGGTATTTATATCAGTCTGTAGTGGATTCCCAA ATTTCAAAGCTCTTTTAATGTAATGGACAAAAATAAGATATGAGAATATTATTGATGAATTTTCATAAGGTGGAA  $\tt TTGATCTTAATCTAACAGAGAGAGGGTAGACAGTTTGTGTTAAATGTTGGCATTTACTTGTATTGACCAAAGT$ ATATTCTGTGATGGGAAACATTGTTGATGTCCTAACAGAAATATATTTTGATCTATTTCCTATGGAGTTGTTTC 

# 1863/2682 FIGURE 1686B

TAAATATATTTTAAATATACTATGTTTGCGAACCTTGGTAGCTATGATGAGAGCTATTATCATCTGTGGTGGGAA AAGCTATGTAAAATAGGTAGATTGTATAGAGAGACTATCTTGTGTTGTGCCTGTATGAATTTTTAAAAGTTGTTGA CTGGATTTTGCAAAAGGATGTAAATTTCTGTCTGCTCAGAATATTAATTTGTAAATTCTGCAAGTTTAATTT TTATGTAGATGGTATAACATTTGAAAATATTGTCTTATGTGATTTTTTCCCCTGAAAATATTTGCTTGTAAATGA AAACTTAGCTAGGGCTTAAATAAACATGTTGCTATGAAATT

# 1864/2682 FIGURE 1687

QDVMEMKKTKVRLMKQMKEEQEKARLTESRRNREIAQLKKDQRKRDHQLRLLEAQKRNQEVVLRRKTEEVTALRR
QVRPMSDKVAGKVTRKLSSSDAPAQDTGSSAAAVETDASRTGAQQKMRIPVARVQALPTPATNGNRKKYQRKGLT
GRVFISKTARMKWQLLERRVTDIIMQKMTISNMEADMNRLLKQREELTKRREKLSKRREKIVKENGEGDKNVANI
NEEMESLTANIDYINDSISDCQANIMQMEEAKEEGETLDVTAVINACTLTEARYLLDHFLSMGINKGLQAAQKEA
QIKVLEGRLKQTEITSATQNQLLFHMLKEKAELNPELDALLGHALQDLDSVPLENVEDSTDEDAPLNSPGSEGST
LSSDLMKLCGEVKPKNKARRRTTTQMELLYADSSELASDTSTGDASLPGPLTPVAEGQEIGMNTETSGTSAREKE
LSPPPGLPSKIGSISRQSSLSEKKIPEPSPVTRRKAYEKAEKSKAKEQKHSDSGTSEASLSPPSSPPSRPRNELN
VFNRLTVSQGNTSVQQDKSDESDSSLSEVHRSSRRGIINPFPASKGIRAFPLQCIHIAEGHTKAVLCVDSTDDLL
FTGSKDRTCKVWNLVTGQEIMSLGGHPNNVVSVKYCNYTSLVFTVSTSYIKVWDIRDSAKCIRTLTSSGQVTLGD
ACSASTSRTVAIPSGENQINQIALNPTGTFLYAASGNAVRMWDLKRFQSTGKLTGHLGPVMCLTVDQISSGQDLI
ITGSKDHYIKMFDVTEGALGTVSPTHNFEPPHYDGIEALTIQGDNLFSGSRDNGIKKWDLTQKDLLQQVPNAHKD
WVCALGVVPDHPVLLSGCRGGILKVWNMDTFMPVGEMKGHDSPINAICVNSTHIFTAADDRTVRIWKARNLQDGQ
ISDTGDLGEDIASN

#### 1865/2682 FIGURE 1688

CTATTTTGTTTGTAGTATTGTGGAACAGTCTTGTTATGGAGTGCCAGCTTAGAGGTTGTTGCAAACTTGTCTAGA AGAGCTCCCACTGGCAATTTTTAGAAGAGCCAGAGGCTCCCTGCTTCCTCTAGAAATAACAGTTCAGGGTGAAGC ATGGAGGGTTTCAGTTCCCAGACAACGGAACCATTTAGAGACAACACAGTTGGACATTTCCACTTTTTCCTTGAT TCCTGGAAGTCCAGTGGGTTCTGCAGCTGAAAAAGCCCTGGGTCCCAGCAGCAGAGAGACAGGACAGAGGGGGATG CCTGCTTTCCCAGACTGGATTCCCACCACAGGGACAGTCGGAACTCAGGACTAGCTCCAGCGACATCTTTCCTCC GAATTCAAGCCTTCTATCACAATGTCAAAACAGCTATTTATAAAGCCATTTTCATTGTACTTGATAACAGCACGA TCAGAAGCCTTTTGGATGACTTACAATAGCTCTGATGAAGATACCACCCCAGCGTCAGTCCAATAGGTCAGTGAG TTTCAACAGGCATCCATCCCTCCCATGAAGGGATTCTGGTGATGGGAAGTTTCTGTAATGACAGGAAAGCATTGA CCCTCATTGATTGTCAACTTTGGTATTAGCCATGAAAGACAGGATGCTCATTGGGTGTTCTGTAGAGTGAGGAAT GCTGCCTATTCCCTCCCAGAACGTCTGACCCAGGGGTGTGTTGTTGAGGAGCCCTGGGGGAAATGGACCAAGTTTT TTGTTCAGTTGCTCATCCACGCTGGATTCCAGAGAGTTTTCCAATTTGGGAAGCCATGAGAAAGGTTTTTAAATC TTGGGAAGATGGAGAGAGGGACATAGGATAGTTGACTCCAACATGACAGGAAGAGGCTGGAGATTGGGAATTGGC CATCAACCAAGCCTGTAGTAGTAAAGCCATGGTCCCGCATTGGAATTACTTGGGGAACTTATACAGTTCTGATAC CCAGGCTCTCCTAGACCAGTTCAACCAATTCTAGGTGGGGGACTCAGGCATCAGTGTGTTTCGTAGCTCCCCGGG TGTTTTCCCTGTGCAGCCGAGCTTGGGAAACTGCCATGCTTTTTGGATGTCAAGGCGCTGTTGGAGGCTGGGTGT GACAGCACAGAGCCAGGTTGTCTTGTGGAAACCACAGCCACGGGTTTGCCACTGGCTCAGCATGGCCTCACTGCC AGTCCCAGCCTGGCTGAGGGACAAGATGGTTTCTCTTGGGAGTTCCTGAGTGGAGCACCCTTCCAGGCTTTTTGA AAGCCAGCTGATCTGTGGAGCCTTGTTAAGGGACTCAATACGGTGTTTGGATATTGATGTTTTTCCTTGAGACTG AGTTTATGAGTTATTCAAGGAGGAGACTTCTTAAAGACAGCAACGCAATTCTTGTAACTTGTGTAAATAGCCCCA TCTTTCAGAGTGATACCATTTCTACATTTGATAATGCCTGTATTCCTGTAGGATGTATATAGTTTAGGGGATTTT AAATAAATACATTTTCAATTCCAGAAAGGATCTATGTCGGGTGCGGAGAAAGAGGTAATGAAATG

1866/2682 FIGURE 1689

MSGAEKEVM

# 1867/2682 FIGURE 1690

GCGGTCACTGGTCCCTGGCTCGGTTCCCCGCACCCCGGGGCTCACACTTACCCGCGCGGAGGAGCAGCGGCCGGG TGTCCACCCCATCCTGCGCCCAGTCTCCTCGATTCCCCTCGCTCTGAGCCGGGAGAGCCGAACAGCTGAAGAGA GTTCACTGACTCCCCAGCCCCAGGTGGGCCTTGTGCACATCATGACCAGTTTTGAAGATGCTGACACAGAAGAGA CAGTAACTTGTCTCCAGATGACGGTTTACCATCCTGGCCAGTTGCAGTGTGGAATATTTCAGTCAATAAGTTTTA ACAGAGAGAAACTCCCTTCCAGCGAAGTGGTGAAATTTGGCCGAAATTCCAACATCTGTCATTATACTTTTCAGG ACAAACAGGTTTCCCGAGTTCAGTTTTCTCTGCAGCTGTTTAAAAAAATTCAACAGCTCAGTTCTCTCCTTTGAA TTTGAGACTCAATTTATTTTATCTCCAAGATCACTCTTGCAAGAAAACAACTGGCCACCACACAGGCCCATACCG GAGTATGGCACTTATTCGCTCTGCTCCTCCCAAAGCAGTTCTCCGACAGAAATGGATGAAAATGAGTCATGAACA CAGAAAGTCTAAGAGGAGAAATATGATGGATGAAGAGCTCTGTAGATGCTGTATAGACACTAAATAAGAGTTGAT TAGGGTAGTATATTATAGTCATCTGTTATGCTGTGAAATTTGGAATTCAGTATTATCATTTTGAAGTCTGTAAAT TGTGTTAGTCATTAACTTAGTCACCTGTTGTATTCTGGATCTACACAAAATTATTTTAACTGCTCTTATTAATCT GTGAGGATTAATATACAAAAAGTATCCTTTGAGATGAAGTCGTGTTCTCAAAATAAGGTTATATTATTTTCTTTT TCTGCTTGATTTTCATCTTGTGTTTTGCTTTGTTTTTGTAAGGAACCATCTCTTGGTTTGGTCACATCAGTTCAC AACAGCCATTTGTTTTCAAGGTCAAGGCTCCAGGCAGGTTGTTACTGGTGTTTGCAGCCTGTCAGTACTTGCAGT ACTGGAATAGGTTCTAGGCTAGTGTCTGCGCGTCACTGTGGTTTTAGCATGGGAGGACTTATTTGAGAAATACTA CCTTACTTTTCTATGATTTCTTTTTACAGAGTTATAGTGTTTTACTCCTAAGATGACAGTTCTCTTTGTCTATA TAGAAGTTTGACTTTTATGTGTTATACACAATCTTAAAATTTCACGAATTCACCTTTTTAATAGTATCCATGTAC ACTTTACAGAGATAAATGTATGTGAATGTTTATGATAAACGCTTAAATATTTCTAAAAATATTAACTTCAAAAAAG TCTTTTTCAGTTCTTAAATAAAATTTATTTATTTAAGATACTTATTCGACTTATCTTAACTAAGGTAGCTATGA ATGTTAAGTAGATGAGGTAACCATTCAGTTAAGTTAAATTGTAGCATTGCCAGGTAGTGAGGCTCACTGTACAAT TTTCCAGGTAAATGAAATTTCCTGTAGTAAGAGGTCCGTATTTTTGTAACAGCCTTTTAAAAATGCTTTTGGGAA CCCTCCAGCCTCTTACCAAAAGAGGCTTTAAACCTCATCTTGATTCAGACTGTCAGTCTATTCCTGGGCAGTAGT ATGTGATGTCCAGCACCCTAACCCCGACTCCCCAGCCCTGGGACTATTCCAGTAGAGTGAAATATTTGTCCCTGT ACAAAGTGGCCTGAATGACTGTTGGAGTTCCTGTGTCTGGTTTTCCTGTTTATTCCCTGTGATGCCCAGAGTAAT GGCCCATCCAAAGATGTCCAGATGTCCATGTGCTAGTCTCCAGAACTTGTAACTGTGTTATGTGGCAAAGGG GAATGAAGGCTGCAGATGGAAGTAAAATAGATTATGCTGGATTATCTGGGTGTGCCCAATTGATCACCGGATCCG GGAAGGGGAGGTCATGAGCCAAGGAATGTGGACAGTCTCTTGAAGCTGGAAAGTGTGCATTGGACATCTGGAAGC CAGAAAAGACAAAGAAATATCCAGAAAGGAACAAAGTCTTGTGGACACCTTGATTTTGGTCCAGTGAGAATATGT TTGACTTGTTAACCTACAAAACTTTATGATGATAAATTTGTGTTGGTCGTAAGCCACTAAATCACAGTAATTTGT 

# 1868/2682 FIGURE 1691

GATAATGTCTCTT**TGA**GGCTTCCTATGGACTGCCTTTATTTTAGTAAACTCAAGACACCAGTTAACCTCAACAGA GTTTTGGCCTTATTAGAATTTGTTGTGCATCTTATTGAAAGCCAGGTTTACATCACCTCACCCCATTATTCTTTT TAGTTAAATTAACCATGCCAAGTAACCAGAATGGAGCAAATTGGTTGATCTTTAAGGCAGTAGGTTTGACT CCAGAGACACTTTAGACATTTTTTAATGTTTTATATGAACATTTTACATTTGTGTGATTGCCTTAGATATTAAAT TTTCCTAGTGCTGATAAAAACAGCAACATTCATAACTTATTTTATATATTGTTCCAAAGAAAAGAATTTGTTTTA GTGTAATAAGCACCAACGTGTGGTTGCTTGGCAGAATGAGAATGTTAAGGGAGATTGTTGGATGTTTGGAGTTTC ATGTACAATTTTTTCCCTCTTCAGGCTTTTTCATTTACCTTTTTGAAAAAGCACTTACTCTCCCCTTCCCTATCA CCCCTCCCCAAGGTTTCTTTATTTAAATTTTTATTGAGAGTTGTTGGAGCTCTAAGACAATACAAATTTAGAGT TGAACAAAAGTATAATCTGCTTTACAACTAGTATAGACCTAAGGTCATTTGCTTTCAATTAGAGGCTCCAGAGTC TTGTTTAAATATACTTCTTGCATAGTTTAATTTTTTAAAAGTTGTATCTAATAAAATGTCTTTTAACCATTATTA CTTGACTATATGGTTGTCTTAAATTTTGTTACG

1869/2682 FIGURE 1692

TGVSHHPRLYFQRGELGVFVVPSGKIMSL

# 1870/2682 FIGURE 1693

 $\tt GTGGGGTTTGCAGAGGAGACAGGGGGAGCTTTGTGTACCCGGAGCA{\color{blue} \underline{ATG}} AACAAGCGGCGACTTCTCTACCCCTCA$ CAGCGTAAACAGTTTTGTCACTGGCCCTGCAAATGCCCTCAGCAGAAGCCCCGTTGCCCTCCTGGAGTGAGCCTG GTGAGAGATGGCTGTGGATGCTGTAAAATCTGTGCCAAGCAACCAGGGGAAATCTGCAATGAAGCTGACCTCTGT GACCCACACAAAGGGCTGTATTGTGACTACTCAGTAGACAGGCCTAGGTACGAGACTGGAGTGTGCATACCTT GCTAAAGGTGGAAAGAAGTCTGATCAAACTGTAGCCTGGAACCATTACTACAGCAGCTTTCAACAAGCTAC CCCTGCTCCAGAACATGTGGGATGGGAATATCTAACAGGGTGACCAATGAAAACAGCAACTGTGAAATGAGAAAA GAGAAAAGACTGTGTTACATTCAGCCTTGCGACAGCAATATATTAAAGACAATAAAGATTCCCAAAGGAAAAAACA TGCCAACCTACTTTCCAACTCTCCAAAGCTGAAAAATTTGTCTTTTCTGGATGCTCAAGTACTCAGAGTTACAAA CCCACTTTTGTGGAATATGCTTGGATAAGAGATGCTGTATCCCTAATAAGTCTAAAATGATTACTATTCAATTT GATTGCCCAAATGAGGGGTCATTTAAATGGAAGATGCTGTGGATTACATCTTGTGTGTCAGAGAAACTGCAGA  ${ t GAACCTGGAGATATATTTTCTGAGCTCAAGATTCTG}{ t TAA}$  AACCAAGCAAATGGGGGAAAAGTTAGTCAATCCTGT CATATAATAAAAAATTAGTGAGTATAAAATGGTGGCAAATCTACTTTGTTTAAAACAGTATGAATGCCTATTCT CAGATCACTACATTTAAGGCATTAGAAACTTTTAAAAAGTTATCTTAAAAATATACATAAAATTTGAACAACTTA TATATGAAAAAATTATGCAATTTACAAGAAAATATTTTACAAAATAATCTGGAATACTTGCTAAAGCTGTATAAA AAATTAGCCAAGTGTGGTGGCATGCGCCTGTAATCCCAGCTACTCGGGAGGCTGAGTCAGAAGAATTGCTTGAAC GAAAAAACATACTCAATTTAAAAAATTTAATCTATATTTGACAATGTAGCCTAAGGTGCCCATTAGTTGATACA  $\dot{c}$ TTCACTGCCTGATCTTGAATATCAGTTTCTTTTGGAAAGGAGAAAATGCAACTTTTCTGGCCACTGTTAACAACT GCAATCTAAAATTTTTTACATCAAATATTGTÄÄAAAGTTAAATTTCCAAGACAAAGACCAAGAACAGTÄTCATTA CTTTGCAAAGGAAAGAAATATAAAGAATACAACTTAAAATTAACCTGTGGATCTGAAATATAAAATGTTATTAAA AATAAATTAATGTTAAGGCTAGAACTGAAGATTATAGTAACCGGAACAATTATAGCCATTTATTGCAAAGTTTGG AAGATATCAAGCTTAGTAACATTCTGTTCATTTGCATAAATGTCATGCAGAACAATAACAAGTAGCACTGTTGAA AAATATAGACATTTATTATAAAATCAATTGGTTTGATAAGAAAGCAATTATTTAAAAAGTTTAATACAAATACAT GTTAAGTGTACAAATTAGGATTCTTTTGGGCAAACAAGTTGTTATCTAAAGAAGAAGCAAAACCTCCTTAACAGT TGTAATAAAACCTATGCCTGAAAAGTTGGTGGCTATTAAAAAA

## 1871/2682 FIGURE 1694

MNKRRLLYPSGWLHGPSDMQGLLFSTLLLAGLAQFCCRVQGTGPLDTTPEGRPGEVSDAPQRKQFCHWPCKCPQQ KPRCPPGVSLVRDGCGCCKICAKQPGEICNEADLCDPHKGLYCDYSVDRPRYETGVCAYLVAVGCEFNQVHYHNG QVFQPNPLFSCLCVSGAIGCTPLFIPKLAGSHCSGAKGGKKSDQSNCSLEPLLQQLSTSYKTMPAYRDLPLIWKK KCLVQATKWTPCSRTCGMGISNRVTNENSNCEMRKEKRLCYIQPCDSNILKTIKIPKGKTCQPTFQLSKAEKFVF SGCSSTQSYKPTFCGICLDKRCCIPNKSKMITIQFDCPNEGSFKWKMLWITSCVCQRNCREPGDIFSELKIL

#### 1872/2682 FIGURE 1695

GGGCTGCGGTACGGCGTTTGGTCCCAGCGGTTCAGCTGAGGTAGGGACGTGCTGTAGGCCGGA**ATG**TTACCGGC TGTTGGATCTGCGGATGAGGAGGAGGATCCTGCGGAGGAGGATTGTCCTGAATTGGTTCCCATGGAGACGACGCA AAGCGAGGAGGAGAAAAGTCTGGCCTCGGCGCCAAGATCCCAGTCACAATTATCACCGGGTATTTAGGTGCTGG GAAGACAACACTTCTGAACTATATTTTGACAGAGCAACATAGTAAAAGAGTAGCGGTCATTTTAAATGAATTTGG GGAAGGAAGTGCGCTGGAGAAATCCTTAGCTGTCAGCCAAGGTGGAGAGCTCTATGAAGAGTGGCTGGAACTTAG AAACGGTTGCCTCTGCTGCTGAGGACGACGATGGCCTTAGAGCTATTGAGAATTTGATGCAAAAGAAGGGGGAA ATTTGATTACATACTGTTAGAGACCACTGGATTGGCAGACCCAGGTGCAGTGGCTTCTATGTTTTGGGTTGATGC TGAATTAGGGAGTGATATTTACCTTGATGGTATCATAACTATTGTGGATTCAAAATATGGATTAAAACATTTAAC AGAAGAGAAACCTGATGGCCTTATCAATGAAGCTACTAGGCAAGTTGCTTTTGGCAGATGCCATTCTCATTAATAA AACAGACCTGGTTCCAGAAGAAGATGTAAAGAAATTAAGAACGACAATTAGATCCATAAATGGACTAGGACAAAT CTTAGAAACACAAAGATCAAGAGTTGATCTCTCTAATGTATTAGATCTTCATGCCTTTGATAGTCTCTCTGGAAT AAGTTTGCAGAAAAAACTTCAGCATGTGCCAGGAACACCACCTCACCTTGATCAGAGTATTGTTACAATCACATT TGAAGTACCAGGAAATGCAAAGGAAGAACATCTTAATATGTTTATTCAGAATCTCCTGTGGGAAAAGAATGTGAG GATTGTCCAGGGTGTCCATGAGCTCTATGATCTGGAGGAGACTCCAGTGAGCTGGAAGGATGACACTGAGAGAAC AAATCGATTGGTCCTCCTTGGCAGAAATTTAGATAAGGATATCCTTAAACAGCTGTTTATAGCTACTGTGACAGA AACAGAAAAGCAGTGGACAACACGTTTCCAAGAAGATCAAGTTTGTACA TAA CACTAGAGGCATTTCTTATCAAAATATACTTTAAAATGGTATTTGTTTTACAGCATACATAAAATGTAGCAAATCAGTACTGTAAAACATTTAACATT CATACAGTTATATATATATCCTTTTTTTAAAGAATGGTATTTCACAAAAATATCTTTTGAAATTGGCTTTGGA ACATGAAATAAAAGGTTATGACTGTTATCG

## 1873/2682 FIGURE 1696

MLPAVGSADEEEDPAEEDCPELVPMETTQSEEEEKSGLGAKIPVTIITGYLGAGKTTLLNYILTEQHSKRVAVIL
NEFGEGSALEKSLAVSQGGELYEEWLELRNGCLCCSVKDNGLRAIENLMQKKGKFDYILLETTGLADPGAVASMF
WVDAELGSDIYLDGIITIVDSKYGLKHLTEEKPDGLINEATRQVALADAILINKTDLVPEEDVKKLRTTIRSING
LGQILETQRSRVDLSNVLDLHAFDSLSGISLQKKLQHVPGTQPHLDQSIVTITFEVPGNAKEEHLNMFIQNLLWE
KNVRNKDNHCMEVIRLKGLVSIKDKSQQVIVQGVHELYDLEETPVSWKDDTERTNRLVLLGRNLDKDILKQLFIA
TVTETEKQWTTRFQEDQVCT

#### 1874/2682 FIGURE 1697A

CAGGGCTGGCTTTTTTTTTTTTTTAATAAGATAGCTGGTGCCCAAGATTGTTTTCCACCTTAAGGATAAAACCTGTT AAGAAAGCCTGAACAATTACAAAAAAGGAAGAAAAGGAGACTTGGCCAACTGGTGTCAGGAGTCTTAACAAGGTC ATAGTTTGCCAGCCCCTGCCCTAAACAAATAATTCTTGAATGCCTACTGTGGTGTAAGATATGAGTAAATACC AGGGATACACAGAGAACAAAAGAGAAAAACTGCTATTCTTGTGAAACTTGGAAGTTGGAGGAGACTTGGAAGATG CTTTTGAGGACCCAGATGTCAACACCACCAATCTGGAATTTGAAATATGTGGGGCCCTCGTGGAGGTAAAGTGCC TGAATTTCAGGAAACTACAAGAGATATATTTCATCGAGACAAAGAAATTCTTACTGATTGGAAAGAGCAATATAT GTGTGAAGGTTGGAGAAAAGAGTCTAACCTGCAAAAAAATAGACCTAACCACTATAGTTAAACCTGAGGCTCCTT  $\tt TTGACCTGAGTGTCATCTATCGGGAAGGAGCCAATGACTTTGTGGTGACATTTAATACATCACACTTGCAAAAGA$  ${\tt AGTATGTAAAAGTTTTA} \underline{{\tt ATG}} {\tt CACGATGTAGCTTACCGCCAGGAAAAGGATGAAAACAAATGGACGCATGTGAATTAGGACGCATGTAGAATTAGGACGATGAATTAGGACGATGAATTAGGACGATGAATTAGGACGATGAATTAGAATA$ TATCCAGCACAAAGCTGACACTCCTGCAGAGAAAGCTCCAACCGGCAGCAATGTATGAGATTAAAGTTCGATCCA TCCCTGATCACTATTTTAAAGGCTTCTGGAGTGAATGGAGTCCAAGTTATTACTTCAGAACTCCAGAGATCAATA ATAGCTCAGGGGAGATGGATCCTATCTTACTAACCATCAGCATTTTGAGTTTTTTCTCTGTCGCTCTGTTGGTCA TCTTGGCCTGTGTTATGGAAAAAAAGGATTAAGCCTATCGTATGGCCCAGTCTCCCCGATCATAAGAAGACTC TGGAACATCTTTGTAAGAAACCAAGAAAAAATTTAAATGTGAGTTTCAATCCTGAAAGTTTCCTGGACTGCCAGA TTCATAGGGTGGATGACATTCAAGCTAGAGATGAAGTGGAAGGTTTTCTGCAAGATACGTTTCCTCAGCAACTAG  ${\tt AAGAATCTGAGAAGCAGAGGCTTGGAGGGGATGTGCAGAGCCCCAACTGCCCATCTGAGGATGTAGTCATCACTC}$  ${\tt CCTCTTCCAGGTCCCTAGACTGCAGGGAGAGTGGCAAGAATGGGCCTCATGTGTACCAGGACCTCCTGCTTAGCC}$ TTGGGACTACAAACAGCACGCTGCCCCTCCATTTTCTCTCCAATCTGGAATCCTGACATTGAACCCAGTTGCTC AGGGTCAGCCCATTCTTACTTCCCTGGGATCAAATCAAGAAGAAGCATATGTCACCATGTCCAGCTTCTACCAAA  $\texttt{ACCAG} \underline{\textbf{TGA}} \texttt{AGTGTAAGAAACCCAGACTGAACTTACCGTGAGCGACAAAGATGATTTAAAAGGGAAGTCTAGAGTT}$ CCTAGTCTCCCTCACAGCACAGAGAAGACAAAATTAGCAAAACCCCACTACACAGTCTGCAAGATTCTGAAACAT TGCTTTGACCACTCTTCCTGAGTTCAGTGGCACTCAACATGAGTCAAGAGCATCCTGCTTCTACCATGTGGATTT CATTATTAGGATTTAATATATATCCAGTGCTTTGCAAGTGCTCTGCGCACCTTGTCTCACTCCATCCTGACAATA ATCCTGGGAGGTGTGCAATTACTACGACTACTCTCTTTTTTATAGATCATTAAATTCAGAACTAAGGAGTTAA GTAACTTGTCCAAGTTGTTCACACAGTGAAGGGAGGGGCCAAGATATGATGGCTGGGAGTCTAATTGCAGTTCCC TGAGCCATGTGCCTTTCTCTTCACTGAGGACTGCCCCATTCTTGAGTGCCAAACGTCACTAGTAACAGGGTGTGC CTAGATAATTTATGATCCAAACTGAGTCAGTTTGGAAAGTGAAAGGGAAACTTACATATAATCCCTCCGGGACAA AGAAAGAGGGGGAGAAACAGTCTTGCGGGTGTGAAGTCCCATGACCAGCCATGTCAAAAGAAGGTAAAGAAGTCA  ${\tt AGAAAAAGCCATGAAGCCCATTTGATTTCATTTTCTGAAAATAGGCTCAAGAGGGAATAAATTAGAAACTCACA}$ ATTTCTCTTGTTTGTTACCAAGACAGTGATTCTCTTGCTGCTACCACCCAACTGCATCCGTCCATGATCTCAGAG GAAACTGTCGCTGACCCTGGACATGGGTACGTTTGACGAGTGAGAGGAGGCATGACCCCTCCCATGTGTATAGAC ACTACCCCAACCTAAATTCATCCCTAAATTGTCCCAAGTTCTCCAGCAATAGAGGCTGCCACAAACTTCAGGGAG AAAGAGTTACAAGTACATGCAATGAGTGAACTGACTGTGGCTACATTCTTGAAGATATACGGAAGAGACGTATTA TAGTTTTCTTGTTTTGTTTTTGTGTTGTCTGTGAATGGGGTTTTAACTGTGGATGAATGGACCTTATCTGTT GGCTTAAAGGACTGGTAAAATCAGACCATCTTATTCTTCAGGTGAATGTTTTACTTTCCAAAGTGCTCTCCTCTG CACCAGCAGTAATAAATACAATGCCATAATCCCTTAGGTTTGCCTAGTGCTTTTGCAATTTTCAAAGCACTTCCA TAAGCATTCCTTCCACCTCCTTGATAGGCATTTATGGAAAGCCTGCTACATGTCAATCATACTGTTAGGCACAGG GGACCTAAAGACACATAAAAGGATGGCATTCTGCCTCATAAATTGCAAAACCTAATGAAAGTGACTGCTTGGTAA 

#### 1875/2682 FIGURE 1697B

# 1876/2682 FIGURE 1698

MHDVAYRQEKDENKWTHVNLSSTKLTLLQRKLQPAAMYEIKVRSIPDHYFKGFWSEWSPSYYFRTPEINNSSGEM DPILLTISILSFFSVALLVILACVLWKKRIKPIVWPSLPDHKKTLEHLCKKPRKNLNVSFNPESFLDCQIHRVDD IQARDEVEGFLQDTFPQQLEESEKQRLGGDVQSPNCPSEDVVITPESFGRDSSLTCLAGNVSACDAPILSSSRSL DCRESGKNGPHVYQDLLLSLGTTNSTLPPPFSLQSGILTLNPVAQGQPILTSLGSNQEEAYVTMSSFYQNQ

# FIGURE 1699

TTCTCTTCTAGTGATGTGGCACGGTGTCCGTGAGCTTGTGACTGCAGCGATACGCTGCXTTGTGGCGTGTCGGCC AGGTGGCGACTACAGCAGGACTGCTCCAACCCCTCCGGCTACCGGGCCCCTTACCGAGCTCCCAGACTGGTCA TATGCGGGGGTATGATCCTGCTTAATTGGATAATTGGTGACTGAGGAAGATGGTGAAGATTTTTTCTACTTGTTA TTTACTATGGCCGCCCTGCTCCCCCAATGAAAGGCCAGCTTCGAAGAAAAGCTGAAAGGGAGACGTTTGCAGTGA GTGAGACGAGTTGTACTGCTGTCACAGGAAATGGACGCTGGATTACAAGCATGGCAGCTCAGGCAGCAGAAGTTG CAGGAAGAACAAAAGGAACAAAGGAAAATGCTCTTAAACCCAAAGGGGCTTCACTGAAGAGCCCACTTCCAAGTCAA TAAAAAAGCAACTCCTGCCTCCCTTCCTC

#### 1878/2682 FIGURE 1700

# 1879/2682 FIGURE 1701

MSAIFNFQSLLTVILLLÍCTCAYIRSLAPSLLDRNKTGLLGIFWKCARIGERKSPYVAVCCIVMAFSILFIQ

#### 1880/2682 FIGURE 1702

GGGAGAACGCGAGTGTTAGTTAACATGGCTTGGTGTGTGGCCACAGCTGACCCGGCGCATACCTCCCGTCCTCTC TTTACAGGGCTGGCGGTGTCTCGGGGCTCGGCTGGCCATGCCTGGAGCGCGGGGTTTGACTGGGCCGCCGTTGTT GTAGTGACCGGGAGGCGCTGCCGCTCTGGGCAGACGGTTCCGGGAGCCGCACGGTCCCCTCTCCTTCCCCATCCT AGGACCCCGTTCTGGAGCGTTATTTCAAAGGCCACAAAGCTGCGATCACCTCCTTGGACCTCAGCCCCAACGGCA ·AGCAACTTGCTACTGCTTCTTGGGATACCTTTCTCATGCTATGGAATTTCAAGCCACATGCTAGAGCTTACAGAT ATGTGGGTCACAAGGATGTTGTAACCAGCGTGCAGTTTTCTCCACATGGAAACTTATTGGCGTCTGCCTCACGAG ACAGAACCGTGAGACTCTGGATTCCTGATAAGAGAGGAAAATTCTCAGAATTTAAAGCTCATACAGCTCCAGTTC GAAGTGTAGACTTTTCAGCTGATGGCCAGTTTCTAGCTACAGCTTCTGAAGACAAATCCATAAAAGTATGGAGCA TGTATCGCCAGCGCTTCCTGTATCCTTGTATCGACATACACACTGGGTACGCTGTGCCAAATTTTCACCCGATG GAAGACTAATTGTGTCATGTAGTGAGGATAAAACTATTAAAATTTGGGATACCACAAATAAGCAATGTGTTAATA ACTTCTCAGATTTCGTTGGATTTGCAAATTTTGTGGACTTTAACCCTAGTGGTACATGCATAGCTTCAGCAGGTT CTGATCAAACTGTGAAAGTCTGGGATGTAAGAGTGAACAAATTACTACAGCATTACCAAGTTCACAGCGGTGGAG TTAATTGCATATCATTCCATCCTTCGGGTAACTATCTCATCACAGCTTCTTCAGATGGTACCCTTAAGATTCTGG ACCTCTTAGAAGGAAGGCTCATCŢATACACTTCAAGGACATACGGGACCTGTCTTTACTGTTTCATTTTCAAAAG GTGGAGAGCTATTTGCATCAGGAGGTGCAGACACACAGGTCTTATTATGGAGGACTAACTTTGATGAATTGCATT GTAAAGGTCTTACCAAAAGAATCTCAAAAGATTACATTTTGATTCACCACCACATCTTCTTGATATCTACCCAA ACCAGAATGTTTGCCAACAACCACGAAAAAGAAAACAGAAGACATGAGTGACCTCCCCTGTGAAAGTCAAAGGAG CATACCTCTCGCTGTGACTGATGCTTTAGAGCATATTATGGAACAACTCAATGTTTTGACACAGACTGTTTCAAT CTTGGAGCAGCGACTGACTTTGACAGAGGATAAGCTGAAAGACTGCCTTGAAAATCAGCAAAAGCTTTTCAGTGC TGTCCAACAGAAAAGCTGAATAAAAAATTCATTTTCATTTGTTGGGCAGAGGCCCAATAAATGAACAAATGTACA TACACTCAGGAAGGTAGTACAAGATACTCCATACAACACAACCATGTGCTATTTATCATGGCATTTCTTAAAAGG GTGAGCAACAGAACAAAAGGCAGAAAAGGCATACCTAAGGACTAATTTAAACACATATCAATGTGAAGGACTAAT TTAAATTACTATCATTTATGATTGCAGTAATAAAGTGATAAGCATTCAAGCAACTCTGTATTTTCCCCCATATTAT TTTAAATGTCCATTTTCATTTATAGGCCAAATCCTGCCAGGAAAGTAACCAGATCTCTGGATTTCACTGTTAAGT CATTTCAGATTGACCATATTCAGACAGTCATGGGGTGAAATAATTCACTTACCTCCAAAATAGCATCCTATATGC CAATAATGAGTTATTGATCTGACTAGTTGTATGTCTTTCTGTTCAAAATAGAAATTATCCTTTCTTACTAATGCC TAGCACAGATATAGCATAGGGCAGTGGGTTTTTTAGTTAATTTATGGCGTACTTTGTTTATCCATTGGCCAACCT TGGTTCACAAAAATTATGTTAGTGTTTTTCAGTATGCTAAAAAGTCAGAGTGATACAAAAGTGATATTTAAAAA TTTTTAAAATTTTTGCATCATCATCTTCCTATTTAATGAATTGTGATTTAAAACAAAATGAAAATAAGCCAGGTA TTCTAAAAGATCCTGGATACAAATTAAGAATTTTGCTTTATTTTAAACCAAATTGAGATTAAATTGAAGAAAAGC AAGCAAATTAATTTCAGCTTGATTATCAACCTGTATCAAGAACAAAAATGGGAGGAGGTGTCCACATTTATGGTG ATTTAGAAATTTTTCTCAAAGAAATTTCAATTGTATCTATGAGATGGGTTTCTAAGTATCTTATTGTGTGTTATA AGTGCCTTTTAATATCATACTAAGTGTGAGCTTCTGGACATTTTCAAGAGCTTACAAAAACTAAGTGGCATTGTA TTTTTATAACCCCATTGAGAAGACTAAGTAAGAAATGAAATGTCCTATCAATTTTATTTTGTCATGCTTCAAACA 

## 1881/2682 FIGURE 1703

MASATEDPVLERYFKGHKAAITSLDLSPNGKQLATASWDTFLMLWNFKPHARAYRYVGHKDVVTSVQFSPHGNLL ASASRDRTVRLWIPDKRGKFSEFKAHTAPVRSVDFSADGQFLATASEDKSIKVWSMYRQRFLYSLYRHTHWVRCA KFSPDGRLIVSCSEDKTIKIWDTTNKQCVNNFSDFVGFANFVDFNPSGTCIASAGSDQTVKVWDVRVNKLLQHYQ VHSGGVNCISFHPSGNYLITASSDGTLKILDLLEGRLIYTLQGHTGPVFTVSFSKGGELFASGGADTQVLLWRTN FDELHCKGLTKRNLKRLHFDSPPHLLDIYPRTPHPHEEKVETVEDFFLHLLRLIQSLR

## 1882/2682 FIGURE 1704

# 1883/2682 FIGURE 1705

 $\label{thm:madkmomslodiklnrsqrggrggragsragrrggaqaarvnrgggpirnrpaiargaaggggrnrpapy srpkqlpdkwqhdlfdsgfgggagvetggkllvsnldfgvsdadiqelfaefgtlkkaavhydrsgrslgtanvhferkadalkamkqyngfpldgrpmniqlvtsqidaqrrpaqsvnrggmtrnrgaggfggggtrrgtrggargrgrggrgrgrgrgskqqlsaeeldaqldaynarmdts$ 

## 1884/2682 FIGURE 1706

GCGGCTGTCCAGTCGTAGCCCGGCCCGCGCCTGTCCGGTCCGGCCACGGAGGCAGCGCAGCGGCGGG CAAGTACCCTAGAAAATGCAACTTCCATTAGTTTGATGAATCTGACTTCCACACCACTATGCAACCTTTCTGATA TTCCTCCTGTTGGCATAAAGAGCAAAGCAGTTGTGGTTCCATGGGGAAGCTGCCATTTTCTTGAAAAAAGCCAGAA CTGAATTTCCTGATGTGAAAATACTGATTGCATTTATAAGCTACAAAGACTTTAGAGATATGAACCAGACTCTAG GAGATAACATTACTGTGAAAATGTATTCTCCATCGTGGCCTAACTTTGATTATACTATGGTGGTTATTTTTGTAA TTGCGGTGTTCACTGTGGCATTAGGTGGATACTGGAGTGGACTAGTTGAATTGGAAAACTTGAAAGCAGTGACAA CTGAAGATAGAGAAATGAGGAAAAAGAAGGAAGAATATTTAACTTTTAGTCCTCTTACAGTTGTAATATTTGTGG GCATAGCATCAGCAATGAGTCTGTACAACTGTCTTGCTGCACTAATTCATAAGATACCATATGGACAATGCACGA TTGCATGTCGTGGCAAAAACATGGAAGTGAGACTTATTTTTCTCTCTGGACTGTGCATAGCAGTAGCTGTTGTTT TAATTAAAACACTGAAGTTGCCCAACTTCAAGTCATGTGTGATACTTCTAGGCCTTCTCCTCCTCTATGATGTAT TTTTTGTTTTCATAACACCATTCATCACAAAGAATGGTGAGAGTATCATGGTTGAACTCGCAGCTGGACCTTTTG GAAATAATGAAAAGTTGCCAGTAGTCATCAGAGTACCAAAACTGATCTATTTCTCAGTAATGAGTGTGTGCCTCA TGCCTGTTTCAATATTGGGTTTTGGAGACATTATTGTACCAGGCCTGTTGATTGCATACTGTAGAAGATTTGATG TTCAGACTGGTTCTTCTTACATATACTATGTTTCGTCTACAGTTGCCTATGCTATTGGCATGATACTTACATTTG TTGTTGCCTGGAGACGTAAGGAAATGAAAAAGTTCTGGAAAGGTAACAGCTATCAGATGATGGACCATTTGGATT  $\tt GTGCAACAAATGAAGAAAACCCTGTGATATCTGGTGAACAGATTGTCCAGCAA\underline{TAA}TATTATGTGGAACTGCTAT$ AATGTGTCATTGATTTCTACAAATAGACTTCGACTTTTTAAATTGACTTTTGAATTGACAATCTGAAAGAGTCT 

## 1885/2682 FIGURE 1707

MGPQRRLSPAGAALLWGFLLQLTAAQEAILHASGNGTTKDYCMLYNPYWTALPSTLENATSISLMNLTSTPLCNL SDIPPVGIKSKAVVVPWGSCHFLEKARIAQKGGAEAMLVVNNSVLFPPSGNRSEFPDVKILIAFISYKDFRDMNQ TLGDNITVKMYSP.SWPNFDYTMVVIFVIAVFTVALGGYWSGLVELENLKAVTTEDREMRKKKEEYLTFSPLTVVI FVVICCVMMVLLYFFYKWLVYVMIAIFCIASAMSLYNCLAALIHKIPYGQCTIACRGKNMEVRLIFLSGLCIAVA VVWAVFRNEDRWAWILQDILGIAFCLNLIKTLKLPNFKSCVILLGLLLLYDVFFVFITPFITKNGESIMVELAAG PFGNNEKLPVVIRVPKLIYFSVMSVCLMPVSILGFGDIIVPGLLIAYCRRFDVQTGSSYIYYVSSTVAYAIGMIL TFVVLVLMKKGQPALLYLVPCTLITASVVAWRRKEMKKFWKGNSYQMMDHLDCATNEENPVISGEQIVQQ

## 1886/2682 FIGURE 1708A

GAATTCGGCACGAGTCATGGCGGCGGGAGCGCGGCTTCCCAGGCCCGCCGCTCCGCAGGGCTGCTGCTG  $\texttt{GCCGTGGGCGAG} \underline{\textbf{ATG}} \texttt{CCGGGGGCCGCCGGCGTTGCGGCGGAGGCTGCTGCTGCTGCTGCTGCTCCTGATCGCC}$ GGCAGTGCTGGGGCCGCCGCCACTTCCGCAAACAGGTGCAGGGGGAGGCGCCACCTGCTGCAGAAGTTTCCTCATCT TTTGTGATCCTGTGTGTGTGCAGTTTAATAATATTAATAGTGTTAATTGCAAACTGTGTATCCTGCTGTAAGGAC CCCTCTGTTCAGTCCCCAGCAGAGGTCTTCACACTTTCAGTACCAAATATTTCACTCCCAGCTCCCTCGCAATTC TGGTTTGGAAAGGTTCTCTTGGGAGAGATTTACACGGGCACTAGCGTAGCAAGAGTCATCGTGAAGGAGTTAAAA GCAAGTGCCAACCCAAAGGAACAAGATACTTTTTTGAAAAATGGAGAACCTTACTACAŢTCTTCAGCATCCAAAT TGCGAGGTCGCCGCGGGGCTGCCCATGCACAAGCTGCACTTCCTGCACAGTGATTTAGCCCTGCGGAATTGT TTTCTCACCTCCGACTTAAATGTGAAAGTGGGAGATTACGGAATAGGATTCAGCAGGTACAAGGAGGATTATATT CTAACTGCAGATCAGACTAAGTATAGTAATATCTGGTCTCTGGGTGTGACACTTTGGGAGCTTTTTGACAATGCC AAGCCCCAGCTGGAGCAGCCCTACTCTGATAGATGGTATGAAGTCTTACAGTTCTGTTGGCTGTCACCAGAAAAG AGACCCGCGGCTGAAGATGTGCACAGGCTGCTGACTTACCTGCGGCTGCAGAGCCAGCGGGACTCAGAGGTCGAC TTTGAACAGCAGTGGAACGCTCTGAAGCCGAACACAAACAGCAGAGACTCCTCCAACAATGCTGCATTCCCAATT  $\tt CTGAGCTTCGAGTATGTCTGGGAGGCCGCTAAGCACGACCACTTTGACGAGCGCAGCCGGGGCCACCTTGGACGAA$ GGCTTGTCCTACACGAGCATCTTCTATCCGGTTGAAGTTTTTGAGAGTTCGCTTTCAGATCCTGGGCCCGGAAAG CAAGATGACAGCGGCCAGGATGTCCCCCTGAGGGTCCCTGGAGTGGTTCCTGTTTTTGATGCCCACAACCTTTCT GTTGGAAGCGACTATTATATCCAGTTAGAAGAAAAAAGTGGTAGTAACTTGGAGCTTGATTACCCACCAGCGCTG CTCACAACCGACATGGATAATCCAGAAAGGACTGGCCCTGAACTGTCCCAGCTCACGGCGCTCAGGAGCGTTGAA CTTGAGGAGTCCAGTACAGATGAGGACTTCTTCCAAAGCAGTACAGACCCCAAAGACTCTAGCTTACCAGGGGAC TTACACGTGACCAGTGGCCCCGAGAGCCCTTTCAACAATATATTTAATGATGTGGACAAATCGGAAGATTTGCCC AGTCACCAAAAAATATTCGACTTAATGGAATTAAACGGAGTTCAAGCCGACTTTAAACCTGCCACTTTAAGTTCC GAGCCTCTCTGCCTATCAGATAATCTTATGCACCAAGATAATTTTGATCCATTGAATGTTCAAGAATTGTCAGAA AACTTTTTATTTCTTCAAGAGAAAACTTACTAAAAGGCTCATTGTCCAGCAAAGAACACATAAATGATCTTCAG ACAGAACTTAAGAATGCTGGTTTTACTGAAGCTATGTTAGAAACGTCATGTAGAAACTCTTTAGATACTGAGCTT CAGTTTGCTGAAAATAAGCCAGGCTTGTCTTTGTTGCAGGAAAACGTAAGCACAAAGGGTGACGATACAGATGTC ATGCTCACAGGTGACACTTTGAGCACCTCATTGCAGTCTTCCCCGGAAGTGCAGGTACCTCCTACCTCCTTCGAA ACAGAAGAAACGCCCCGTCGGGTACCCCCAGACTCACTCCCAACACAGGGAGAAACCCCAGCCCACGTGTTTAGAT GTTATTGTCCCGGAGGACTGTCTCCACCAGGACATCAGTCCAGACGCTGTGACTGTCCCGGTTGAAATTCTCTCA  ${\tt ACTGATGCCAGAACCCACAGCCTGGATAACAGGTCCCAGGACTCTCCTGGCGAGAGTGAGGAGACCCTGCGACTC}$ ACCGAAAGTGACTCTGTTCTTGCTGATGACATCCTTGCCAGCAGGGTGAGTGTAGGGAGTAGTCTCCCGGAACTG GGACAGGAATTGCACAATAAACCATTTTCGGAAGACCATCACAGTCATCGCCGGCTAGAGAAAAACTTAGAGGCT  ${\tt GTGGAGACTTTAAATCAGCTCAATTCTAAAGACGCAGCAAAAGAAGCAGGCTTGGTGTCTGCCCTCTGGAC}$ TCAACCAGTCAGGACAGCCTCCTGGAGGACAGCTTGTCAGCACCCTTCCCAGCCTCTGAGCCGTCCCTGGAAACC  ${\tt CCGGACTCTCTGGAGTCAGTGGATGTCCACGAAGCGCTACTGGACTCTTTAGGATCTCACACTCCCCAGAAACTA}$ GTGCCCCCGATAAGCCGGCAGACAGTGGCTACGAAACAGAGAACTTGGAGTCTCCCGAGTGGACCTTGCATCCC GCTCCCGAGGGCACCGCAGACTCAGAACCAGCCACCACGGGCGATGGCGGCCACAGCGGTCTGCCTCCCAACCCG GTCATTGTCATCTCAGATGCCGGCGATGGTCACAGAGGCACAGAAGTGACCCCTGAGACGTTCACAGCTGGCTCC

### 1887/2682 FIGURE 1708B

CAGGGTTCATACCGAGACTCTGCGTACTTCTCAGACAATGACTCTGAGCCCGAGAAAAGGTCTGAGGAGGTCCCG GGAACCTCCCCATCCGCCTTGGTGTTGGTACAGGAGCAGCCCCTACCCGAGCCAGTCCTCCCCGAGCAAAGTCCT AGTGACCTGGAATTAAGAGCCACGCCGGAGCCAGCACAGACTGGTGTTCCCCAGCAGGTGCATCCCACGGAAGAC GAGGCCAGCAGTCCCTGGAGTGTGCTGAATGCAGAACTTAGCAGCGGCGATGACTTCGAGACACAGGACGATCGC CTGTCCAGCCACTCCGAGGGCCCGAAGTTGAAGGAGCCGGACATCGAAGGGAAGTACCTGGGGAAACTCGGGGTG TCAGGGATGCTCGACCTCTCAGAGGACGGATGGATGCAGACGAGGAGGACGAAAACAGCGACGACGACGAG GACCTGCGGGCCTTCAACCTGCATAGCCTCAGCTCCGAGTCGGAGGACCGAGCACCCCGTGCCCATCATC GAGGACTGGAAGAAGGAAAAGAAGGCAGTCACGTTTTTCGATGATGTCACAGTCTACCTGTTTGACCAGGAGACC CCAACCAAAGAGCTGGGGCCCTGTGGAGGAGAGGCGTGCGGCCCGGACCTGAGCGCCCAGCCCCAGCCTCAGGC TCTCCCTACCTGAGCAGGTGCATCAACTCCGAAAGCTCCACCGACGAAGAAGGTGGTGGCTTTGAGTGGGATGAT GACTTCTCCCCAGATCCTTTTATGTCAAAGACAACAAGTAACCTGCTCAGCTCCAAGCCTTCTCTCCAAACATCC AAGTACTTTTCTCCGCCGCCCCGGCCCGGAGCACGGAGCAGAGCTGGCCGCACTCGGCGCCCTTACTCCCGGTTC TCCATCTCCCGCCAACATTGCCAGCTTTTCCCTCACACACCTGACCGACTCGGACATCGAGCAGGGCGGAAGC CCCCTGCGCCCTCAGCCCGAGCAGCACCCCACTCGCCATTTGCTGACATGAGATTGGGAGGAAGAATCCAGAG GTGAAGAGGGAGACGGCTCTTAGCTGCGTTCAAGGCGGGGCCCTCGGGAGCCCAGGTGCAGAGCCGAGGCCGTGTC GGGGGAGGCAGGGCACAGCCTCCATGTGCGCGCGCGTGTGGAGCTGTGTGCACCGCATGTGTGCTTCCACAGG GGCGTCTCTGCGTCCACGCCTGCACATCCCGGCGCACGTGTGGGCACCACAGAGGACACGTGAGGGGAATGGTCA CCAGTGAGCCATATTTATTATTTCTAGAGAAATCACGAACTGCTTTCTGTAATTGCACTGTGGATAAATGTTCCG AGAGTCTCCATTGTTGTACAGGATCTTCAGTTATTCGAGGGGAATGAGGCAGGTCAAGCCGATGCTAGCCACTAG TTTGATTTTTTTTTTTTTATAGTTTGCGCTGCATGGTACTTGTGAAGCTTAAATATTTTGAGTGTTCTACTGT GTCTAGGATTGTTGGGATTGTACATATGGTACTCTTTCATAAATGATAAATGATTCTGAATGTTAGTGTTTATG TTCATATAGGAAATATTTTCATTGAGTCCAAAATACCACTGTTTTGTTGATGGACTTGAATGCATTTTTGTCTCT TCTTGATGAAGCGGCTTTGCCGCAGCAAATGAGGCTTCTCTCTGAGGAGCTGAGAGGTCTTGCAGCCTCTCCTTG TCATTCTCCCACCCCACATCCCATTTTTTAAAGCCCTTTTGGTAAAAACCAACAGGTTGTGGCCGCAGACCTCAG CGCTTCCCTCCGCGCAGCTCTTCTGCCTGGTTTTCGGAGGCCAGGCTGCTGGGAGGCTTCCGTGTTCCTGTCAGT CCTTCCTTCAAGAAGCCGGGGAACTCAGGCAGACTCATCTCCGCAGAGCATACCAGCCGTGGGGGACCGTTCGAC TTGATGATGTGTGCACACTTCAGGTGGTGGGGACTTGAGCTTTAAAAAAACCTCCACAGCCGAATCTTCTCCTCC GAGCCACTCCACGTCACGTCCAGCTGGGCCTGGCCAGTCTGTGGTTATCCATGTGGGATGAGATAACACCACATC  $\tt CTGCAGCTGTGAAGGGGATGGACAAGGGACGACGGCCGACGGCAGAGCATCAGCAGCAGCACATAGTTCGGGT$ GACCTCACACCTCCCTGAGTTCTGCTCTGACATAAGGAAGTCCTCGGTGGCTGGTGCAGCGCGGCTGTGCT  $\tt GTGCTGGGGAGCCGTTCCTTCGGGGGTCCTTGGGCCTGCAGTCCCCTCATACTCACCCTTCACCCAACATA$ TTTTCCGGTGCTGATATGTTTCCAGACTCCAGCGCAACCTGGGGTGCTCTCCAGACCCGTGCAGGGGCCGCCTGG GGTACACGGAAGGAAGTTGAGTCCTAGTGCAAAATGCAGGCGGACGTTGCCAGAGAGTGCGCAGCAAATGACCTT CATTGCCAGTTCCACCCTACTCCTCATTTTTTATACTAAGCAATAACTTTCCAAAGCAAGAAGTTCAGGATGG GGATGCGCGAATTTTTTTTTTTTTTTAATTAACAGGGCATTAGAAGATGATTTTGCCAAAATTGTCATGACTCTG AATTCTTGCTGTGGGGACTTCCTGAGTTTTCTCAGTTTTTACATCTAAGATTAGTCTTGGCTGAAGAGAAATGAG ACGTGATTATACTACTTTTCAATTGCAGGTTTAAGGAGTTCAGATTTAATGACCAAAGTCATACAGATCATGGA ATCTGTCGTCGTCTTATACAGTGTCAGCCTCGAGTACATTTATTAACCTTTTGGGGCTGTCAGTTTTCCACTAGG 

## 1888/2682 FIGURE 1708C

TTTGAGCCCAGGAGTTCAAGACCAGCCTGGGCAACATGGCGAAACCTCGTCTCTACTAAAAATACAAAATATATA TATATATATACTAGCTGGGGCACATAGTGGTGTGCACCTGTAGTCCCAGCTGCTTGGGAGGCTGAGGTGGGAG GATGGCTAGAGCCCAGGAGATGGGTGTTGCAGTGAGCTGAGACCATGCCACTGTACTCTAGCCTGGGTAACAGCC AGACCCTGTCTCAAAAAAAAAACAATTTTTTTCATAACATAATTCCCATTTTTATTTATTTTGAGTCACTCATAA TTAATTGCCAAAAAAGCATTTTATACATTGAGTTGGGGGGTAGTGGATCTTAGTGGTGGTGTTGCATGGAGGGGCG AGATTTTATATTTATAATCAACACGTGGGTTAACATGTTTTTTTGAAATCCAAGCAATACACAGGAAATTTAAGT TTATTTTTTAACTAATAAGTTGGTTATCAGTGGTGGGTTTTCAAAATGTACTTGTTCTAATAAGTTGTACAATGA CAGAATCAATCTGAATTAGTCCTGTTTTGGTGGAGTTTGTACATTTTAAATCCTATAACAAAAATAATCTAGTTT TCATTTCCTTACTAGCTAGATGCGAATTTGTCTTTTTGAATGACCCTGTCAATAAGCCAGAAAGGGCAACCCAGA AAGCTCGACCAAGCCGAATTGCAAACAACGTTCGTTCTATTTTTAAATGTACAGGTTCGATCGTTTCTATAGAAA TGGGTTTATCTAAGAAAAGTCTTGGTTTGTCTTGCTGCTGTAAAAGGCCTTTCCAAACCCCTCCTTTTATTCCTG AGCGCCTGCTCTTCCTTGACTCAGCCCATCATCTGAAAATTCAGAAGTGAACCAAGGGTTAGACGCCAGAGGTTG ACTTCCGATGGAAATCTCCAAAACAATATTCCTAAGTAGCAATGGGGTTGGCTCAAGTCTTTATTAACAAAGAAC ATTCTCTTTCATCTATAAAGAAATTCTTAAAGATGCATTGACAGTGTTGAATTACCAACAGCCTGTGAAGATCAG TTTGACCGGTGTGGACACGTGCTGGTTAAGCACTCAGGCCTACGTGGGCCGAGCGGGATCTTGATCATGGGGCTG TGTGCTTTAACACAGGCAGAAGAGGTTCATGGCAATATAATAGTCAATGAACTTTCAGTTTAAATTGTGTACATT TTTAAATTGTAAGATTTTTACTGTATATTGATGCATAGTGTGATTCAATAAATTGCTTGTAATTTAAAAACTATT 

## 1889/2682 FIGURE 1709

 ${\tt MPGPPALRRRLLLLLLVLLIAGSAGAAPLPQTGAGEAPPAAEVSSSFVILCVCSLIILIVLIANCVSCCKDPEID}$  ${\tt FKEFEDNFDDEIDFTPPAEDTPSVQSPAEVFTLSVPNISLPAPSQFQPSVEGLKSQVARHSLNYIQEIGNGWFGK}$  $extsf{VLLGE}$  | YLLGE | YTGTSVARVIVKELKASANPKEQDTFLKNGEPYYILQHPNILQCVGQCVEAIPYLLVFEFCDLGDLKAY  $\tt LRSEQEHMRGDSQTMLLQRMACEVAAGLAAMHKLHFLHSDLALRNCFLTSDLNVKVGDYGIGFSRYKEDYIETDD$  $\tt KKVFPLRWTAPELVTSFQDRLLTADQTKYSNIWSLGVTLWELFDNAAQPYSNLSNLDVLNQVIRERDTKLPKPQL$  ${\tt EQPYSDRWYEVLQFCWLSPEKRPAA} {\tt EQPYSDRWYEVLSPEKRPAA} {\tt EQPYSDRWYEVLSPEKRPAA}$  ${\tt ARDRLGREMEEVLTVTETSQGLSFEYVWEAAKHDHFDERSRGHLDEGLSYTSIFYPVEVFESSLSDPGPGKQDDS}$ GQDVPLRVPGVVPVFDAHNLSVGSDYYIQLEEKSGSNLELDYPPALLTTDMDNPERTGPELSQLTALRSVELEES  ${\tt STDEDFFQSSTDPKDSSLPGDLHVTSGPESPFNNIFNDVDKSEDLPSHQKIFDLMELNGVQADFKPATLSSSLDN}$  ${\tt PKESVITGHFEKEKPRKIFDSEPLCLSDNLMHQDNFDPLNVQELSENFLFLQEKNLLKGSLSSKEHINDLQTELK}$  ${\tt NAGFTEAMLETSCRNSLDTELQFAENKPGLSLLQENVSTKGDDTDVMLTGDTLSTSLQSSPEVQVPPTSFETEET}$  $\tt PRRVPPDSLPTQGETQPTCLDVIVPEDCLHQDISPDAVTVPVEILSTDARTHSLDNRSQDSPGESEETLRLTESD$  ${\tt SVLADDILASRVSVGSSLPELGQELHNKPFSEDHHSHRRLEKNLEAVETLNQLNSKDAAKEAGLVSALSSDSTSQ}$ DSLLEDSLSAPFPASEPSLETPDSLESVDVHEALLDSLGSHTPQKLVPPDKPADSGYETENLESPEWTLHPAPEG  ${\tt TADSEPATTGDGGHSGLPPNPVIVISDAGDGHRGTEVTPETFTAGSQGSYRDSAYFSDNDSEPEKRSEEVPGTSPLOWDERFTAGSQGSYRDSAYFSDNDSEPEKRSEEVPGTSPLOWDGGHSGLPPNPVIVISDAGDGHRGTEVTPETFTAGSQGSYRDSAYFSDNDSEPEKRSEEVPGTSPLOWDGHRGTEVTPETFTAGSQGSYRDSAYFSDNDSEPEKRSEEVPGTSPLOWDGHRGTEVTPETFTAGSQGSYRDSAYFSDNDSEPEKRSEEVPGTSPLOWDGHRGTEVTPETFTAGSQGSYRDSAYFSDNDSEPEKRSEEVPGTSPLOWDGHRGTEVTPETFTAGSQGSYRDSAYFSDNDSEPEKRSEEVPGTSPLOWDGHRGTEVTPETFTAGSQGSYRDSAYFSDNDSEPEKRSEEVPGTSPLOWDGHRGTEVTPETFTAGSQGSYRDSAYFSDNDSEPEKRSEEVPGTSPLOWDGHRGTEVTPETFTAGSQGSYRDSAYFSDNDSEPEKRSEEVPGTSPLOWDGHRGTEVTPETFTAGSQGSYRDSAYFSDNDSEPEKRSEEVPGTSPLOWDGHRGTEVTPETFTAGSQGSYRDSAYFSDNDSEPEKRSEEVPGTSPLOWDGHRGTEVTPETFTAGSQGSYRDSAYFSDNDSEPEKRSEEVPGTSPLOWDGHRGTEVTPETFTAGSQGSYRDSAYFSDNDSEPEKRSEEVPGTSPLOWDGHRGTEVTPETFTAGSQGSYRDSAYFSDNDSEPEKRSEEVPGTSPLOWDGHRGTEVTPETFTAGSQGSYRDSAYFSDNDSAYF$  ${\tt SALVLVQEQPLPEPVLPEQSPAAQDSCLEARKSQPDESCLSALHNSSDLELRATPEPAQTGVPQQVHPTEDEASS}$ PWSVLNAELSSGDDFETQDDRPCTLASTGTNTNELLAYTNSALDKSLSSHSEGPKLKEPDIEGKYLGKLGVSGML DLSEDGMDADEEDENSDDSDEDLRAFNLHSLSSESEDETEHPVPIILSNEDGRHLRSLLKPTAANAPDPLPEDWK DPFMSKTTSNLLSSKPSLQTSKYFSPPPPARSTEQSWPHSAPYSRFSISPANIASFSLTHLTDSDIEQGGSSEDG EKD

## 1890/2682 FIGURE 1710

# 1891/2682 FIGURE 1711

MGPGGRVARLLAPLMWRRAVSSVAGSAVGAEPGLRLLAVQRLPVGAAFCRACQTPNFVRGLHSEPGLEERAEGTV NEGRPESDAADHTGPKFDIDMMVSLLRQENARDICVIQVPPEMRYTDYFVIVSGTSTRHLHAMAFYVVKMYKHLK CKRDPHVKIEGKDTDDWLCVDFGSMVIHLMLPETREIYELEKLWTLRSYDDQLAQIAPETVPEDFILGIEDDTSS VTPVELKCE

## 1892/2682 FIGURE 1712

# 1893/2682 FIGURE 1713

 ${\tt MKVKIKCWNGVATWLWVANDENCGICRMAF\acute{N}GCCPDCKVPGDDCPLVWGQCSHCFHMHCILKWLHAPAGAAALPHVPPGMEVQGVRPTWLSLEGHPETPSSCWRRWLLGTAPLSCNKVETRAGAAFVLPSLC}$ 

#### 1894/2682 FIGURE 1714

GTTTACATCCGCCGGGTGCGCGGTTCGCCGCCCGAGGTCGTTCGGCTCGGGTACCATCCTCCGCGCCATGGACAC CAGCGACCTGTTCGCCAGCTGCAGGAAGGGGGATGTGGGCCGAGTGCGACCATGAACCCGTCCTGACCCAGGCTC GAGCTGGTACTCTACCTTCTGGCCAATGGAGCCCGCTGCGAGGCCAACACCTTCGATGGTGAGCGCTGCCTCTAT GGGGCACTGAGTGACCCCATCCGCCGGGCTCTACGCGATTACAAGCAGGTCACGGCTTCCTGCAGGAGGCGGGAT TACTATGACGACTTCTTGCAGCGGCTTCTAGAGCAGGGCATCCACAGTGACGTGGTCTTTGTAGTACACGGGAAG GGCAAGAGTGTCGTGGTTCTCAGGCACCCACTGATCAACCCCGTGGCCTTTGGGGGCCCTGCTGCAGTACCTGTAC ACAGGCCGCCTGGACATTGGCGTAGAGCATGTGAGTGACTGTGAGCCCCTGGCCAAGCAATGCCAGCTGTGGGAC CTGCTCAGCGACCTGGAGGCCAAGTGCGAGAAGGTGTCTGAGTTTGTGGCGTCTAAGCCAGGCACGTGTGTGAAG GTGCTGACCATCGAGCCCCCACCTGCAGACCCCCGCCTCCGGGAGGACATGGCGCTGCTGGCCGATTGTGCCCTG CCCCCGAGCTCCGAGGTGATCTTTGGGAGCTGCCCTTCCCTTGTCCTGACGGCTTCAACAGCTGCCCTGACATC TGCTTCCGAGTGGCTGCCAGCTTCCTCTGCCACAAGGCCTTTTTCTGTGGCCGCAGTGACTACTTCCGAGCC CTGCTGGATGACCACTTCCGAGAGAGCGAGGAGCCAGCGACCTCAGGGGGGCCCCCCAGCCGTCACCCTGCATGGC ATCTCACCCGACGTCTTCACTCACGTGCTCTACTACATGTACAGCGACCACACTGAGCTGTCCCCCGAGGCAGCC TATGATGTGCTGAGCGTCGCCGACATGTACCTGCTGCCAGGCCTGAAGAGGCTGTGCGGCCGCAGCCTGGCTCAG ATGCTAGACGAGGACACTGTGGTGGGTGTGTGGCGCGTGGCCAAGCTCTTCCGCCTGGCGCGGCTTGAGGACCAG TGCACTGAGTACATGGCCAAGGTCATTGAGAAGCTGGTGGAGCGGGGGGAGGACTTCGTGGAGGCGGTGAAGGAGGAG GCAGCGGCTGTGGCAGCCCGGCAGGAGACGGACTCTATCCCGCTGGTGGACGACATCCGCTTCCACGTGGCCAGC ACGGTGCAGACCTACAGCGCCATAGAGGAGGCGCAGCAGCGTCTGCGGGCACTCGAGGACCTGCTCGTGTCCATC  $\mathsf{GGTCTGGACTGT}$   $\mathsf{\underline{TGA}}$   $\mathsf{GCCCCTGGCTGGGCAGCCCCAGGGGGCCAGGAGCTCTCTTGGAGACAAGCATGTGTATGCG$ TTTGTGTGCAGCTCTTCTTCCTGCTCCCTGCACATTGAGGGCTTCATGGGGGGTGCGAGGGGCTCAGTGGGGCTT CTCTTCCCTCCATGAGCCTGGAGACCCCAGGGGAGGATCCATTTGGGATGAGCCCCCTCCCCCCAATGCACAAGC CAGCCCCAAGACCCTGGGGGTGGACACCACTCAGGGAAACCTGGGGTGGGGTGGGCTTTGGTCTTAGCACTTT CCTTCTCCAGATCCCCCTACCCACCCCAGTCCCAAATCCAGTCCTCTGGCCCTTGCCTAGCCCTGAATTGCTTC 

## 1895/2682 FIGURE 1715

MLDTKWKGKSVVVLRHPLINPVAFGALLQYLYTGRLDIGVEHVSDCERLAKQCQLWDLLSDLEAKCEKVSEFVAS KPGTCVKVLTIEPPPADPRLREDMALLADCALPPELRGDLWELPFPCPDGFNSCPDICFRVAGCSFLCHKAFFCG RSDYFRALLDDHFRESEEPATSGGPPAVTLHGISPDVFTHVLYYMYSDHTELSPEAAYDVLSVADMYLLPGLKRL CGRSLAQMLDEDTVVGVWRVAKLFRLARLEDQCTEYMAKVIEKLVEREDFVEAVKEEAAAVAARQETDSIPLVDD IRFHVASTVQTYSAIEEAQQRLRALEDLLVSIGLDC

#### 1896/2682 FIGURE 1716

TGACCTGCCGTTTGACTGCTTTTACATCAAACTCTGCCCAGTATTTGCAGCACAACTCAGGGGAAGGGCCTTAGC TTACAGGTACTCCCAGCCTTCATCTGCCCCTGCAGAGCAGTGGCTGTCAGCCGGATGCGGCACTTTTCTGTATTT TCATCCACACAGCTGCCCAGCCAGAGTTCGCAACACTGGATATTTACACCAAATAATTGTGGTTGACTTGTCTGA  ${\tt AGCCAGCTGACAAAAGGATCAGCTTTTCCCACTTGTATTTTTTAAAAAGAGGGATTGTGATCATTGTCACAGAGT}$ TACTGCTGTCTCTAGTTTTAAGTCCCAACAATAGGAAGGCCGATCAGCTATATTGATATATTTAAGGCTGTACTT CACTTTTTAAAGTATTTGATTACTGCAACTGGAGAATGAAAAGTGTATATTGGTGACGCCAACCTCAGTTTCTGA CCTTGTCTTGCTAGCCCTCTTCCATTCATTTCTCACACAGCACTTTGCTCTGTTTAAATCCTCTGTCTCAGACCAT TGCTTGCCCCTTCAAAGGGTATGGTTCAGGCTCCTTTCAAGACATTTGGAGTTTCTCTCTGGGGAAAGAGAGCCC CCTACTGGTTTGGCTTCAGTCTAGGTCCACCATCCCTCTCGATCTGGCATCTTGGAGATTAATTTAAAAGGCAAG CTCACCACAATGTAAGCCTATGGTCTGGCCAACCTTGCTTTTGGGAACTGTGACACCAAAGCCCCCAGGACTATC TGCCTCTCCAGGAGCCAGATAGAATGACATGCCTTTTTCCTAATTGTCCACACTCCACCCCCAACCCACTGCCAC TGTGGGCCAAGCCATCCTTGCAATCTTCATCTAAAACAGCTCTCATTTCATGCCAGTTTTGCTCAAACCTGC ACCGTCACAAGATATTCAGAAGATGAAAACGTAGAAGACACCCCTGAATTAAAAACACTTACATAGCAGTGGCTG GAATTACTCCAAAACGTGCCCAGTGATCGCACTGTAACATGGGATTTTCTCACCCAAATAGGCAACTCATGCTTC CTGAGTGTAATCAAAGCATGTGGTGTTTTGGGGCCCATATGCACCAGGTTTCTATTTTAGAAACCTTCAGCTGTCT TGCTTATGTACCGTATGTAAATTTATTCTTTTTAAAAATCACTTTTATTTGATTTTGACTTATTAAAATGCTTTAA AAGCCAGAAAAAAAAAAGTGATTTT

1897/2682 FIGURE 1717

IFSKTSCFYLKFFSYLL

#### 1898/2682 FIGURE 1718

TGCGGCCGCTGCCTTGGACCCAGCGCCACCCGCACACGGCGCTCCGCTAGCCAGGCCGGGAGCAAGAGCCAGGCG GTGGAGAAGCCGCCGTCGGAGAAGCCGCGGCTGAGGCGCTCGTCGCGCCGGGCCCCAGGAGGAGGGCCGGGGGAG CCGCCGCCGCCTGAGCTGGCGTTGCTCCCGCCACCGCCGCCGCCGCCGACTCCCGACCCCGACGTCCTCG GCGTCCAACCTGGACCTGGGCGAGCAGCGGGACGCCTGGGAGACGTTCCAGAAGCGGCAGAAGCTTACCTCCGAG GGTGCCGCCAAGCTCCTGCTAGACACCTTTGAATACCAGGGCCTGGTGAAGCACACAGGAGGCTGCCACTGTGGA GCAGTTCGTTTTGAAGTTTGGGCCTCAGCAGACTTGCATATATTTGACTGCAATTGCAGCATTTGCAAGAAGAAG CAGAATAGACACTTCATTGTTCCAGCTTCTCGCTTCAAGCTCCTGAAGGGAGCTGAGCACATAACGACTTACACG TTCAATACTCACAAAGCCCAGCATACCTTCTGTAAGAGATGTGGCGTTCAGAGCTTCTATACTCCACGATCAAAC CCCGGAGGCTTCGGAATTGCCCCCCACTGCCTGGATGAGGGCACTGTGCGGAGTATGGTCACTGAGGAATTCAAT  ${\tt GGCAGCGATTGGGAGAGGCCATGAAAGAGCACAAGACCATCAAGAACATGTCTAAAGAG{\color{red}{\bf TGA}}{\tt GCTTCTGCCTCT}}$  $\verb|CCTGCCCTGAAAAGGAGGAATGATTGGGGCCAGCAACTTTGCTCTCCCTGCCGTGCCTCGGTGGTGCTCCTGAAT| \\$  $\tt GTGGCTGACCTGGGCTGCTGGTTCCGTTGACTAGGGTCATCTTGATCTCTGCAGTTTGCTCCAGCTACCAGTTTC$ TTTAGGCAGCTCTTTGTCCTCCCTCTGCCCAGATTTTGATGTAGTCTAATTGACATCCTTCTCTCCCAACTTTT GTGTGATCCAGCAGAGCATGTGAGACTCTTTGATATGCACCTTCATGTATTATCTTGTTCAGTTCTCTGAGGTTG GGATCATTATTATTTCCCATTTTGCAGATGAGAGAATTGAGGCAGAGAAAGGTTCAGCACCTTGCCTTTGGTTAC ACAGCTGGTCATTCTGGCTTCAATCGCAGGACTACCAGCCTGTGCTCTTCACCACTTAGCTTCCCTGACTCAGGC CACTTCCCTGGAGCGTTAGCTGGATTCTGAGAGTAGTTTCCAAGCCAGAGCTTTCAGAGAGCTTTTGTTCGTAGG CTCCAAAAAGACTGAGAGCTGACATATTTGATTGTAAGCTCTTTGAGGCAGAGTTCTTGTAATCGTCTCTGTATA AAACAGTGCCCACCCCAGTGACCTGTACTTGGATGCTTCAATCAGAGCTGTCCTGTTAAATAGAGCAAGTTTTTC CTAGACCCACATTCT

# 1899/2682 FIGURE 1719

CGRCLGPSATRTRRSASQAGSKSQAVEKPPSEKPRLRRSSRRAPGGGPGEPPPPELALLPPPPPPPPPPTPATPTSS ASNLDLGEQRDAWETFQKRQKLTSEGAAKLLLDTFEYQGLVKHTGGCHCGAVRFEVWASADLHIFDCNCSICKKK QNRHFIVPASRFKLLKGAEHITTYTFNTHKAQHTFCKRCGVQSFYTPRSNPGGFGIAPHCLDEGTVRSMVTEEFN GSDWEKAMKEHKTIKNMSKE

#### 1900/2682 FIGURE 1720A

CCCGGGCGAGCCCGCCGCCACAGCTCTGCCCGCCCCCTGGAGCGGATCCCCAGCCGTCCCTGGGCGTTCT  $\tt CTTTCCCCTGCCTGTGTGCCCTTCTCCAGG{\color{red} ATC} GCAGAGGCGGAATTGCACAAGGAAAGGCTGCAAGCCATAGCA \\$ GAAAAAAGAAGAGGCAGACTGAAATAGAAGGCAAGCGACAACAGCTTGACGAGCAGATACTTCTGCTGCAGCAT TCCAAGTCCAAAGTGCTTCGGGAGAAATGGCTGCTGCAGGGCATACCCGCTGGAACTGCCGAAGAGGAGGAAGCC AGGAGGCGGCAGTCTGAAGAGGATGAGTTCAGAGTCAAGCAACTTGAAGATAACATTCAGAGGCTGGAGCAAGAA ATACAAACGCTAGAAAGTGAAGAGTCCCAGATATCTGCCAAAGAGCAAATCATCCTAGAGAAACTGAAGGAAACA GAAAAATCCTTCAAGGACTTTCAGAAGGGTTTCTCCAGTACGGATGGAGATGCAGTAAATTACATTTCCTCCCAG CTTCCCGACCTGCCAATCCTCTGTTCACGAACAGCAGAACCATCACCTGGGCAGGACGGGACCAGCAGAGCGGCT GGAGTCGGGTGGGAGAATGTGCTGCTAAAGGAAGGTGAGTCAGCCTCGAACGCCACAGAAACATCCGGCCCAGAC ATGACTATCAAGAAGCCTCCCCAGCTTTCTGAGGATGATATCTGGCTAAAAAGCGAGGGAGACAACTATAGTGCC ACCCTCCTGGAGCCTGCCAGCTCTCTTTCCCCAGATCACAAAAACATGGAAATTGAGGTGTCTGTTGCAGAA TGTAAAAGTGTTCCTGGAATCACCTCTACCCCACATCCCATGGACCATCCCTCCGCTTTCTATTCACCCCCGCAT AATGGCCTCCTTACTGATCACCACGAATCCCTGGATAATGATGTTGCCAGAGAGATCCGCTATCTAGATGAGGTG CTAGAGGCCAACTGCTGTGATTCTGCTGTGGATGGAACGTACAATGGAACATCCTCCCCAGAGCCTGGTGCAGTG TCCCCCAGCCAGCCTAGAGATGCGCTGGGGGACAGCCTGCAGGTGCCTGTCAGCCCCAGCTCCACAACCAGCTCA CGGTGTTCTTCCCGAGATGGAGAGTTCACTCTCACCACACTGAAAAAGGAGGCCAAGTTTGAGCTGCGTGCCTTC CCTGGCATTGCAGCAAAATGGTGGAATCCCCCGCAGGAAAAAACCATCGAGGAGCAGCTGGACGAGGAACATCTG CAGCAGCAGCAGCAGCCCCCATCGCAGCTCTGCACAGCCCCTGCCTCTTCTCATGAACGCGCAAGCATGATT GACAAAGCAAAGGAGGACATTGTCACAGAGCAGATAGATTTCTCTGCTGCTCGCAAACAATTTCAGCTGATGGAG AATTCCAGGCAAGCGGTGGCCAAGGGCCAGAGTACACCCAGGCTGTTCTCCATCAAGCCTTTCTACAGGCCTCTG GGGTCAGTCAACTCAGACAAGCCACTGACTAATCCGAGACCACCTTCTGTCGGGGGACCTCCAGAAGACAGTGGT GCCTCAGCCGCCAAGGGACAGAAATCCCCCGGTGCCCTGGAGACCCCATCGGCAGCAGGAAGCCAGGGCAACACA GCCTCTCAGGGGAAGGAAGGCCCTACAGCGAGCCTTCTAAACGTGGGCCCTTATCTAAACTGTGGGCTGAGGAT GGAGAATTTACGAGCGCCCGGGCTGTCCTCACTGTGGTCAAGGATGATGACCATGGGATTTTGGATCAGTTCTCA AGATCTGTCAATGTCTCCTTGACCCAAGAGGGGCTTGACTCTGGTCTGGACGAATTGTCGGTGAGGTCTCAGGAT ACCACAGTCCTGGAGACCCTATCCAATGATTTCAGCATGGACAACATCAGTGACAGCGGGGGCATCCAATGAGACA ACCANTGCCCTCCAGGANAATTCACTGGCTGATTTTTCTCTGCCCCAGACACCCACAAACTGACAACCCCTCAGAG GGCCGAGGAGAAGGCGTCTCCAAGTCATTTAGTGATCATGGTTTCTATTCCCCTTCCTCCACGCTGGGGGACTCT CCGTTGGTTGATGACCCCTTGGAGTATCAGGCTGGCCTCCTGGTGCAGAATGCCATTCAACAAGCCATAGCCGAG CAGGTGGATAAAGCTGTGTCCAAAACCAGCAGGGATGGAGCAGGAGCAACAGGGACCTGAAGCGACTGTAGAGGAA GCTGAAGCTGCGGCTTTCGGCTCAGAAAAGCCTCAGAGCATGTTTGAGCCACCTCAGGTGTCTTCTCCTGTTCAA GAGAAAAGGGATGTATTACCAAAGATTCTGCCTGCTGAAGACAGGGGCGCTCAGGGAAAGGGGGCCCCCCCAGCCA TCGGAGGCAGCTGAGCTGAGAAGCACAGCCTCCCTCCTGGCCACTCAAGAATCTGACGTGATGGTTGGGCCTTTC AAGCTGAGGTCCAGGAAACAGCGGACTTTGTCCATGATTGAGGAAGAGATCCGAGCAGCTCAGGAAAGGGAAGAG GAGCTGAAGAGGCAGAGACAAGTCTTGCAGAGTACGCAGAGCCCCAGGACAAAGAATGCCCCATCACTGCCCTCC AGAACATGCTACAAAACTGCTCCAGGGAAAATAGAGAAAGTCAAACCTCCTCCATCCCCACCACTGAAGGCCCC AGCCTGCAGCCTGACTTAGCCCCTGAAGAGGCTGCCGGAACCCAGCGGCCCAAGAATCTGATGCAGACCCTCATG GAAGACTATGAGACACACAAATCTAAAAGGCGCGAGAGAATGGATGATAGTAAGTTACACTTCTAAGTTACTGTCT GCAGGGATCTATGCCAACCAGGAGGAAGAAGACAACGAA<u>TAA</u>ACTTCCTTCAACCCAGGAAGCGTCTTTGGTGCT 

#### 1901/2682 FIGURE 1720B

AGCAATCCTTATGTAGACCAGAAGCTGCAATATACAATGATGAAAATGAAACGAAAAGGAAGTCCCCCCCATCAGA CTCTGGACACCCAGGAATCAAAAGAGAAAGGACTTTTTTGGTGACTCAATCCCAGTGTCTGGTTTGGGGCCAATC TACAATGGATCCAAAAGGACAAAACATGTTACAAGCAAATCAACATAGTTGCTGCAGGCGGAACTGAGACCAGCC TCTCTGGGCGATGAAGGACAATGGTGGTAGGGCCACTTAGAGAGCAGTAGGGCCCAGGCTGGTGCAGCCTACATG GCACAGGATATTTCCCTGCACCAGTTTCCCACCTGTCACTTGCAGCATCAGAGGGTGTTGCATTAACTCCATTTT CTCCAGCAGCCATAAAATGAATGGCGTTTCTCTCCATATTTGCCCAGAAGAGGCAGTTATGATTCCACTTCTCCT ACATTTAATTATTTTTAATTGAGAACAACTCATGATCACAATTCATAAAATCCATATTTTAAGACAATAGTTCTT TTAGCTTTAGGATCGTGTCTGCTTATAATATTCACTGATCTGCAGTTTATGAGAACACATTTTCACAGTTATGTT TCTTCATAGGAAAACTATATTTAGTGGGCAACAACTATTTTTATGATGGGATGGGGGAGTATATACACGTATAGA AACTCTGCCTTGGAGAGGTAGATAAAAATAAAAAGGTGTTTATAACTATTTTGTATTATAAAGTGGGCCTT ACCAGTGTGTTTCAGGATGATACAAAGAAAAATATAGAATAGAAATAAGTGCAGGCTTGGAATCAGCTACAAATC CTAAAGATGGGGTGTGTGTGTGTGTGTGTGTGTACACCATTGTGTGTTTGTAAAATGTGTATGTTCA  ${\tt TGAGTAAGGGTGTGTGTGTGTGTATTAAAATTCCAGAGTGACCGTGGCACTTGGGTGTACAGGTAATTCCTCC}$ TGCAGTATTTGTAATATTAAGTTGACCTAACAAGGTATTTGCATGAGTCACAATTACAAAGTTTTGAGCGGTTTT GTAATTTGACATTTAGGAAAGTCTCCTATTTATTCTCATACTTTACATTCATGCTTAGTATACTATAGAGGATGC CAGCTTTAATCTTTCTGTCATTTAAAGCCATATGATAAGGGTATTCAATAATTGGGTGCCCTAAATTTCTGGATG TGTGGTTTTTTAAAAAAGCAATAATTAACTCAGACCTCACTAAAAATCATTTTTGTTTTTATATTGTTATGTCAT CTTCTTTTATTAGACTAGTGTTGACTTTGGGGGGGGACATTTATTCACAAATGAGAAGTAGGCACAAAGTAAAAA ATGGAACCATCTACTAACAAGGATCCTTTAAAACTGCCAAGGGAGCTCTAACTTGAAGCCACATCCTACAGATGG AACAAATGTGCTAGCCACTGGGGACGCAAAACAAGTAAGATCCCTGTTGCAAGAAATTCATTTTATAGTGAGGG AGGTTGGCATGGAGACTAAAATTCTCAGGAAAATGAGATCCGTGTTAGATTAGAAGTCCTGATGTGAAATGGGAG GACTCAGGAAGGATCGTCTTTACCTGAGGATTTCTAGCCAGAGGTCCCAGATGCCTGGGCTGAGAACCCAGC GATAAGGGGGCGTTCCCAAAGCAGACACAGGGATAAGAACAGAGGAGGCAGCAGCATTGCACAGCCCCAGGCACA GTGGCAGTTAGGATGGCTGGAGAGTAGGATAGTTCTATGGGTTGCCCAAAAAATGTGATGCGCTTCATGTTTTCT CTGACTCATGGATCTGGTAGAGACCATAGACATGATATAGACTAACTTCCCCATTTTTCACAATGAAGGTAAACC ATCCTTATGACTTACCTTAAAGTTTTTTGTTCTGTTTTGAAGGAAACCATGTGCTTCATGAAACCTACAGTTGAC AAGAGAATGTACAGCTAAGAGAAAAGCTTAAGAGGCCACACTATTCGCGGAATGGCTTTAGAGGCAGATGAAGTG GTCTTTGACCACAGTTGATTGAACCAGAGCACTTATTGCTTAAAGAATAACAGAGTTCTAGAGCTGGGGGTTCTT GGGCCATGCTCCGTGTGTGGATAAGGAAAGAAATACTGTTTCTGGGACTCTCCCACAGTCACAAAGCTGTTTTCA CTGTGGCCCCTACATCTCTTAACTTTTGCTATTACTCCTATGCTGCCTTCCGGATTACTGCTGTCTATCTTCTTG CTCCACTCACTGAAGATCCTATTATAATCCCATGAAAATGTAAATTACAGTTTACTTGGGAGAGCCAGATTTTCT CTGTGCTCTTGAGTTTTTTTTTTCATTCAAGAAACCTTGGGCCACCGCTTTGTACATAGCACCGTGCTAGGCTCTG GGATCCCAAATGGACCCTTTTAACTTTCTGAAGATGGGACCGTCCCCTGGAGGAAAGTCATTCCTGCCTAATCCA TCGAGAGAAAGAGGCTTACGAAAAACTTTGCCTCTGATGCTCAGCCCCACCCCCAAATAGCACACAAGCTTGTTA ACCCCACCTCTTACAAAATGTTTAGATTCTGTAGGTGTTAAAAGCCTTTCTGGAAGTATTGCATTCTGCCGTGTT TATAGGTGTTCACTTTCCTCCAGAGCTGATTAACTACTGACATGACTTGGCTTTCTCATCCAGAAATTATGGAAA CAGGGTCTGTCAGTGGCAGGAGGCCGTGCTGTTTTTACTTGGATGACACAATGCAGTTTACTTGCCTCTTCATA CACATATATATATAAAGTGTAACAAGGAACACTAAAACAGTGTTGATTCTTGTCTCTGAAGACAAATAATTAA 

# 1902/2682 FIGURE 1720C

#### 1903/2682 FIGURE 1721

MAEAELHKERLQAIAEKRKRQTEIEGKRQQLDEQILLLQHSKSKVLREKWLLQGIPAGTAEEEEARRRQSEEDEF
RVKQLEDNIQRLEQEIQTLESEESQISAKEQIILEKLKETEKSFKDFQKGFSSTDGDAVNYISSQLPDLPILCSR
TAEPSPGQDGTSRAAGVGWENVLLKEGESASNATETSGPDMTIKKPPQLSEDDIWLKSEGDNYSATLLEPAASSL
SPDHKNMEIEVSVAECKSVPGITSTPHPMDHPSAFYSPPHNGLLTDHHESLDNDVAREIRYLDEVLEANCCDSAV
DGTYNGTSSPEPGAVVLVGGLSPPVHEATQPEPTERTASRQAPPHIELSNSSPDPMAEAERTNGHSPSQPRDALG
DSLQVPVSPSSTTSSRCSSRDGEFTLTTLKKEAKFELRAFHEDKKPSKLFEDDEHEKEQYCIRKVRPSEEMLELE
KERRELIRSQAVKKNPGIAAKWWNPPQEKTIEEQLDEEHLESHKKYKERKERRAQQEQLLLQKQLQQQQQPPSQ
LCTAPASSHERASMIDKAKEDIVTEQIDFSAARKQFQLMENSRQAVAKGQSTPRLFSIKPFYRPLGSVNSDKPLT
NPRPPSVGGPPEDSGASAAKGQKSPGALETPSAAGSQGNTASQGKEGPYSEPSKRGPLSKLWAEDGEFTSARAVL
TVVKDDDHGILDQFSRSVNVSLTQEELDSGLDELSVRSQDTTVLETLSNDFSMDNISDSGASNETTNALQENSLA
DFSLPQTPQTDNPSEGRGEGVSKSFSDHGFYSPSSTLGDSPLVDDPLEYQAGLLVQNAIQQAIAEQVDKAVSKTS
RDGAEQQGPEATVEEAEAAAFGSEKPQSMFEPPQVSSPVQEKRDVLPKILPAEDRALRERGPPQPLPAVQPSGPI
NMEETRPEGSYFSKYSEAAELRSTASLLATQESDVMVGPFKLRSRKQRTLSMIEEEIRAAQEREEELKRQRQVLQ
STQSPRTKNAPSLPSRTCYKTAPGKIEKVKPPPSPTTEGPSLQPDLAPEEAAGTQRPKNLMQTLMEDYETHKSKR
RERMDDSSYTSKLLSCKVTSEVLEATRVNRRKSALALRWEAGIYANQEEEDNE

#### 1904/2682 FIGURE 1722

GCTCTCGGGCCGCCCTCTTCGCCGTCTCCACGCCTCCGCGGGCAGTTACCAGCTTTGGCTGCTCGCGCCTCCCC AACTCGGGTAAAGCTCCTCGGCCTCGGCGTGCTGCGCCTCCGCGGCTGCCCTGCGCCAGAATTCGGTTCCCTCAA AATTATAAAAGCAGGAAAGCTCAAGACAAAGAAATCCAACAAGGCTAGTGATTTCAGTGATATGGAGAATTGGCC AACACCAAGTGAATTAGTGAACACTGGATTTCAGAGCGTCCTCAGCCAAGGAAATAAAAAGCCACAAAATAGAAA AGAAAAAGAAGAAGATGAAAAGAGAAGTAACAGTGACAGCAAAGAAAACCGGGGAAACAAAATTAAATGGTCC TGGTGAAAACGTCAGTGAGGATGAGGCTCAGTCAAGTAATCAACGTAAGAGAGCTAATAAGCACAAGTGGGTACC AGCAAATAAACCAACACATAACAATAGGAGAAATGATACACGAAGTTGGAAGCGAGATAGAGAAAAAAAGAGATGA TCAAGATGACGTTTCCAGTGTGAGAAGTGAGGGTGGTAATATCCGAGGTTCCTTTAGAGGTCGAGGAAGAGGCCG AGGACGGGGAAGAGGACGAGGCAGAGGAAATCCTCGATTGAACTTTGATTATTCATATGGTTATCAAGAACATGG TGAAAGGACTGATCAACCATTTCAAACAGAACTTAATACCAGTATGATGTATTACTATGATGATGGTACAGGTGT ACAGGTGTATCCTGTGGAAGAAGCGTTGCTTAAAGAGTATATTAAGCGTCAAATTGAATATTACTTCAGTGTAGA TTTTCAGCGTGTTCAGGCTCTCACTACAAACCTTAATCTCATCTTAGAGGCACTGAAGGATAGCACAGAAGTAGA AATTGTGGATGAGAAAATGAGAAAAAAGATAGAACCAGAAAAATGGCCAATTCCAGGCCCTCCTCCACGCAGTGT GCCACCAACAGACTTCTCTCAACTGATTGATTGTCCAGAGTTTGTACCAGGCCAAGCCTTTTGCTCACATACAGT  ${\tt CAGGGTGATGATCTTC}$   ${\tt TGA}$   ${\tt AGCTCTTGGATGTCATTTGATCGGAATATGCAGTGGAATAGGTGACTCACTGAAAT}$ GCCTTTATAAATACTGGAACAAATCCTGCTGCAAAAATGAAAGCGATCAGACTGTCTTCTGTTCAAGAATGTCTA TTCCCACCTCTTGGTGGAGGAAGTTGGGCCAACACTGCAGTGGAGATAACCACCTTTGCGATAATGAGAGACAGA  ${\tt CCAGAGGACTGCTACTCTTTTATAGGAGCTGCCTATTTCTGTGTAATTGGCCTGGGCTGCATGGGCTGCTTTTA}$ TTCATGGTGGGAAAGTTAATTATTATTCTGGAAATACCGCAAGATTATGTTTTCTGTTTCCAGGGTTATGTA CTTGTGTCCAGATGAATAAAGCAGAAAAAGAGGGGATTGAGTAGCATTTCCCAGATTCTTAAGTACTTTGCTATT CGATTTGCCTTTCAGTGTAGTGTACATTGTAAAACTCAGATATTGTCATGATGTTTCACTTGGACATAAGACTTA TTAATGTGGTCACTTAAGGGGTAAGGAATTTAAGAACTGGATGAGGTTATTTCTTCCTTTACTCTTCAAAATGTA TTTTTGATACATCAGTATGAGAGGACGTCCCATCAACAAAGCATCGATGATGGACAGTCTCACACTATTTTTATC ATATGTTTCTTTGTCAGCCTTCTGCTTCTAATCCCAGTAAGCAACTTGGACAGGCATTTTAAAAGCTGAAGAAAA TTAACCATTTATGCATACTAATAAAATTATAAGAATAAAATCATAATGTTGT

## 1905/2682 FIGURE 1723

LSGRPSSPSPRLRGQLPALAARASPTRVKLLGLGVLRLRGCPAPEFGSLKIIKAGKLKTKKSNKASDFSDMENWP TPSELVNTGFQSVLSQGNKKPQNRKEKEEKVEKRSNSDSKENRETKLNGPGENVSEDEAQSSNQRKRANKHKWVP LHLDVVRSESQERPGSRNSSRCQPEANKPTHNNRRNDTRSWKRDREKRDDQDDVSSVRSEGGNIRGSFRGRGRG GRGRGRGRGNPRLNFDYSYGYQEHGERTDQPFQTELNTSMMYYYDDGTGVQVYPVEEALLKEYIKRQIEYYFSVE NLERDFFLRGKMDEQGFLPISLIAGFQRVQALTTNLNLILEALKDSTEVEIVDEKMRKKIEPEKWPIPGPPPRSV PPTDFSQLIDCPEFVPGQAFCSHTVRVMIF

### 1906/2682 FIGURE 1724A

 ${\tt CCAGGGAGAGGACTGCGGCCAAGAGTGCCCGGTGGGGACGTTTTGGCGTGAACTGCTCAGGCTCACTGCTCCTGT}$ GGGGGGCCACCTGCCACGGGGTCACGGGGCAGTGCCGGTGTCCGCCGGGGAGGACTGGGGAAGACTGTGAGGCA GGTGAGTGTCAGCCGCAGCCCCAGTTCCGCCTCCCCAGGCTGCACGGCTCCAAGCTGGTGGGGGCCCTGAACTGTG GGGGCCCCAGCCCTGCGGATCCCAGGCCCGTCTATAGCAGGTGTGAGAGCTCACAGTGCACTCCCCTGGGGTAGG GAGGGGGGTCTGTGGCTGCCCCACCAAGTTCCTGGGGCCTCCAGGCTGCCCTCTCGGGCTGCTCCCTCTCTGCA TGAGGCTCCATCTCTAACGGGCTCGGCTCCTTGTGTTGCCAGCTGAACGGTGCCGGGGGCTGGGGGTCCTCTACT GTGGGTGCGCACCCCGCAGCCTGCAGCCCCAGGAGGTGCCCGGGGTCCTCTCCCCTCCCCGGGGCAGGCTGAGATG GTAACAGTGGTTCCACCTCCTCGGCTGTGGCTCCAGGGGCATCGTGCCATGTTATGTTGATGTTGAGCAAGGG TGATGGGCACTGCCACCCAGCCACCGGACACTGCAGCTGTGCCCCCGGGTGGACCGGCTTTAGCTGCCAGAGAGC CTGTGATACTGGGCACTGGGGACCTGACTGCAGCCACCCTGCAACTGCAGCGCTGGCCACGGGAGCTGTGATGC CATCAGCGGCCTGTGTCTGTGTGAGGCTGGCTACGTGGGCCCGCGGTGCGAGCAGCAGTGTCCCCAGGGCCACTT  ${\tt TGGGCCCGGCTGTGAGCAGCGTGCCAGTGTCAGCATGGAGCAGCCTGTGACCACGTCAGCGGGGCCTGCACCTG}$  ${\tt ACATCTAGGAGTCCAGGGGTCCAGGCCTGAGCGAGGGTGCTGGCCTCTTGCAGGGCCCACAGGACACTT}$ GATGGGGAGTGAGGCTGGCCAGGTCATCCTAGGGGCAGCCCCTGCAAGGTGCCTGACCCCAAAGTCCAAC  ${\tt CCTGTCTCAGGCCACTGTGCGTGCCCAGAGGGCTGGCCTGGCCTGTGAGAAGGAGTGCCTCCCCGGGACCTGTGCCCAGGGCCTGGCCTGGCCTGGCCTGGCCTGGCCTGGCCTGGGCCTGGCCTGGCCTGGGCCTGGCCTGGCCTGGCCTGGCCCTGGGCCTGGGCCTGGGCCTGGGCCTGGCCTGGCCCTGGCCTGGCCTGGCCCTGGCCCTGGC$ GTCAGAGCTGGCTGCCGGCACAGCGGCGGTTGCCTCAACGGGGGCCTGTGTGACCCGCACACGGGCCGCTGCCTC TGCCCAGCCGGCTGGACTGGGGACAAGTGTCAGAGCCCACCTGCCCCGGCCTGTCCTGGCCCACAGATCCCCAC CCCAGCGCTGCAGCTGCCCGCCTGCCTGCCACCACGTCACTGGGGCCTGCCGCTGTCCCCCTGGCTTCA CTGGCTCCGGCTGCGAGCAGGCCTGCCCACCCGGCAGCTTTGGGGAGGACTGTGCGCAGATGTGCCAGTGTCCCG GTGAGAACCCGGCCTGCCACCCTGCCACCGGGACCTGCTCATGTGCTGCTACCACGGCCCCAGCTGCCAGC AACGATGTCCGCCCGGGCGGTATGGGCCAGGCTGTGAACAGCTGTGTGGGTGTCTCAACGGGGGCTGCTGTGATG GCCCCCGGGGAGAGCCGGCGTCCGCTGTGAGCGAGGCTGCCCCCAGAACCGGTTTGGCGTGGGCTGCGAGCACA AGCACGTGTGAGCCTGCCACGGGCACCTGCCGCTGCGGCCTCTATGGCCAGGCCTGCGAGCACCCCTGT  $\tt CCCCCTGGCTTCCACGGGGCTGCCCAGGGGTTGTGCTGGTGTCAACATGGAGCCCCCTGCGACCCCATCAGT$ GGCCGATGCCTCTGCCCTGCCGGCTTCCACGGCCACTTCTGTGAGAGGGGGTGTGAGCCAGGTTCATTTGGAGAG GGCTGCCACCAGCGCTGTGACTGTGACGGGGGGGCACCCTGTGACCCTGTCACCGGTCTCTGCCTTTGCCCACCA GGGCGCTCAGGAGCCACCTGTAACCTGGATTGCAGAAGGGGCCAGTTTGGGCCCAGCTGCACCTGCACTGTGAC  ${\tt TGCGGGGGTGGGGCTGACTGCGACCCTGTCAGTGGGCAGTGTCACTGTGGGATGGCTACATGGGGCCCACGTGC}$  $\tt CGGGAAGGTGGGCCCCTCCGGCTCCCGAGAACCCGTCCTTAGCCCAGGGCTCAGCGGGCACACTGCCCGCCTCC$  ${\tt AGCAGACCCACATCCCGGAGCGGTGGACCAGCGAGGCACTAGTAGAGGCAGTCCCGTGGAGCCCGCCTCTCCAGT}$ GAGGGAAGCCTCGCATGGCCGCTGGAAGAGAGGCGCCTCCTGGCCTGGCTCTGCAGAACCCAGGGGCACGCTCTG

#### 1907/2682 FIGURE 1724B

GGCCTGGGCTGAGGAAGTCCCGCTCTCCCCGCGGCTCTGAGTTGGACTGAGGACAGGTGTGGGCCCAGTGTGGG CGCCCAGCCCGTATTTATGTAAAGGTATTTATGGGCCACTGCACATGCCCGCTGCAGCCCTGGGATCAGCTGGAA GCTGCCTGTCATCTCCTGCCCAATCCCCAGAAACCCTGATTCAGGTCTGCAGGCTCCTGCGGGCTCACCAGGCTG  $\tt CTGGCTCCGGTACCATGTAAACCTAGGAAGGTAAAGGAGCAGGCAACCTCCTCGTGGCCTGTGTTTTGCTGTGT$ TACGTGGACTCTGTGTGGGCTCCTCCCTGGGGCCCGGCCAGCATAACGGTGCACCCAGGGACCTCCCAGTGCACC CGGGGCCCTTTGCAGGGGTGGGGGTGCCACACAAGTGAAGAAGTTGGGACTCATCTCAGTTCCCAGTGCTATTGA GGAGAACGCTGGGGCTGCATTCATTACCGCTGAGACCCAGAGACTGGCTGTTCCCAGAGAATGGCCCAGGGGGAG GAGGGCTGGTGTGGAGGGCCAACCTGGACTGAGGCCGAACTCCCTTGGGCTCACCCCACCCCACCCCTACCTGAGC ATCAGCAGTGGGGGGAGGGCAGCATCGCAGGGGCAGGGACTCCCTGGGTGAGGACAGACCAGCCCTCCCGAGCAC TGGTGGCTGGGGGCTCCTCTGCAGAGTGGGGTGGCCAATGGAGAGGGCTGCACTCACACCGCAACATAGGACTCT CTCTCCCTTAAGAAGGCCCCCTTAGGGTCTGGGCTGCCGCCCCATCACCCTAAAACCAGCCAAGGTAGCTGAGG TGGTGGGGATGCAGAAGCAGCCAGAGAGAGAGACGGACTGGGGTGCAGACGGAGTGTGGAAAACGCATACCTTG AAATGAAGCATCCAGCAGATGGGGTGAGTGGATACAGCTCAGGAGATTCTCCCAGGAATAGCAGGGAGGCGTAAA TACAAAAGTAAGAAGTCATTGACATGAAĢCAACGACCAAGACGTTCTCAGATCTAAAGGTGAATGATCTCAG TCAGCCTGGAAATGCACAAGGTGGAAAAATAACATAAAAAAAGCCATAAGACCTTGAAGAACATCAATGTCAAAGA TAAATTCTAAAGTCCCAGAGAAAAAAGAATGGGAATCAAATTGACCTCAGACTATACGTGAGAAACACGGAGAGC CAGAAAACTGTGATGTTCCATCCTCAGAGTTTGAAGGAAATATTTGAAGGCTGAATTTTACATCCAGCTAAACTA TCAAAGGCATGCAAAGTCCATGTTATTCTTAGGCCTTCAAGGCCTCGGCCATTTTTCTACAGAAAAGCCTGATTT CAGTTCCCAAATGGCCTAGGAATTCAGAGAGTCAGAATATCACCATTACTCCCCAATGGGAACCCCCGACAGTCT CAGCATGGTGTGAGGGTGTGGACGGGGGGCCTGGCAGGTACCAATCACTCATCCCGCTCAGTGAAGACACAGTGT TCAGCTACGGAAGCCATAAGGCAGGCCGAGCTTCTGCCCATCCGGAGGAAATCTCAGCTATCCAACGGCGGTCAG GAGCAGAGGAAAATAAAGCAGAATAACTAGAAAACACGCTCACAGATCCTAATGTTAACGGTTACAAATGACGAC GGAAAAACAAACTCCTGACCATATATTATATAGTTTCAAGCAGCAAGAAGGAGGATATTGAACATTCTCAACACA CATAATAAACGCTTGAGATGATGATATGCTCATTACCCTGATTTGATCACTAGACATCCCATGTATCAAAACATC ACTGTGTATCCGATGAATATCTACAATTATTGTCAATTAAAAACATCATTAAAAAACAA

## 1908/2682 FIGURE 1725

MGLESQTDPVGPAGWGMQVAPSSLAPACPAGLYGDNCRHSCLCQNGGTCDPVSGHCAGPEGWAGLACEKECLPRD VRAGCRHSGGCLNGGLCDPHTGRCLCPAGWTGDKCQSPPAPGLSWPTDPHGPLLEASAALIFLQPACGAGLERPV PSAAAARLALPATTSLGPAAVPLASLAPAASRPAHPAALGRTVRRCASVPVRTRPATLPPGPAHVLLATTAPAAS NDVRPGGMGQAVNSCVGVSTGAAVMRPRGPAAAPLGSSGRTATSPVRRAASAPTAPTCVGVGRGRPATL

### 1909/2682 FIGURE 1726

GGGCGCGGGCATCCGGCTGGTGACCCTGCTGGTGGATCGGGACGGGCTGTACAAGATGAACCGCCTGTACCTCAC TAAACCTGGTATTGAAACTGACCTGAATGACGCTGCATATGTACTTTATACCACCGTTTGTAACGTGGGTGCCAC GGCAGCAGGTATATTGTGATGGGCCACATCTACCATAAGAGACGGCAGCTCCCTACAGCTCTGCTCCAGGTCCTG  ${\tt AGAGGCCGCCTCCGTCCAGGGATGGACTGCTAAGGAGCAGCAGCAGCTATGTGAAAAGGTTTAATCGAAAAAGGG}$ AAGGGCAGATTCAAGGTGCAGTTCATACCCAATGCATTTGAAACAACCATCCTGGCATTTCTGGACCGCAAGAGA CTTGGACGTCGGCAACAAGACATGAAAGGTCTACCTTCATGTAATGGGTCCTCCTTCAGAAGAGAGCCCTCAGCT ACTCTGTGAATGACTTGCATAGCTGCAACTGTAATCTCGAAGGTGTCACTTTGTTATTTACAAGATGCTTCTTAA  ${\tt ATGGGCTGCTCCTGAGCCTCAGTGTCAAGGTGATTCAACTGTTGTGCCAGACAGTGATTTACACAGCTCAGATAA}$ CTGACCTGTCTAGTTAACAGATCACTGCTTCATGTTTTCAAATATTTTAATTTAATACATTCTTTAGTAGAAATA GTCCACAAAAACATTTTCTTGAATTTAAATATACAACTTTTATATCATGTATCAAACCAGATTTTATATTCAAAC GATCACATTTTAAATTCTGTACATAACAGTAAGCGCACTAGTCAAAAGACATTTATGTTTGAAATGTCATTTAGA TCAAACACAAGGGTCAAAGCCCAGGACAAGTATTAAAGTTTTATACTTAAAGAGTACTAAAGGGCCAGTGTGCAG ATGGGTGGATTAAAAAAAATAAAATAAAAAAAAATAGTACTAAAGGGCTTACTTCAGGCAAAAGTGTTCCTGACG AAAGGTTTGAGAAAAAGGCTTTCTCAAATTCATTCCCCAAACCTTGGAACCAATATTCACCAATGACGGCTCACA AGCAAGCGAATTTTAAACATTTTTCAGTTGGTTTTAAAAAGGTTTAATTGGCCGGG

# 1910/2682 FIGURE 1727

 ${\tt LGVMLFSKLFFGSSGERDRARCGRAGRGHPAGDPAGGSGRAVQDEPPVPHPRRLLLPSPHVSPGLLQLQ}$ 

### 1911/2682 FIGURE 1728A

TTTTGGCTGCCTCTGTCGGTCTGTTCAGTTACCACGTGAACCGCCGACGGAGACCCGTAGTGGGGGAGGCGGCGG CAGCGTTAAGTGAGAAAGGAAAAAAGACAACGAGGAAAAAGGAGGTGTCCGGGTAGGGCAACGCGGCGACACCCG AGGCCTGGTGGTGGCGGCGGATCGAGATATTCAAGGCTGAAGCAGCTACGGAACGGCAGCGGCGGCGGTCGGACA AACTGACTGACCGAGCCGGGTGGTGGCGGGAGCAGCGGGAGCGGAACG<u>ATG</u>CCGGCCGTGAGCCTCCCGCC CAAGGAGAATGCGCTCTTCAAGCGGATCTTGAGGTGTTATGAACATAAACAGTATAGAAATGGATTGAAATTCTG TAAACAAATACTTTCTAATCCCAAATTTGCAGAGCATGGAGAAACCTTGGCTATGAAAGGATTAACATTGAACTG TTTGGGGAAAAGGAAGAAGCTTATGAATTGGTTCGTAGAGGTTTGAGAAATGACTTGAAGAGTCATGTGTTG GCACGTTTATGGCCTTCTTCAGAGGTCAGACAAGAAGTATGATGAAGCCATTAAGTGTTACAGAAATGCACTAAA ATGGGATAAAGACAATCTTCAAATCTTAAGGGACCTTTCCTTACTACAGATTCAAATGCGAGATCTTGAGGGTTA CAGGGAAACGAGGTATCAGTTACTTCAGCTTCGACCTGCGCAGAGAGCATCATGGATTGGTTATGCTTA CCATTTATTAGAAGATTATGAAATGGCAGCAAAGATTTTAGAAGAATTTAGGAAAACACAACAGACATCCCCTGA CAAGGTGGATTATGAATATAGTGAACTACTCTTATATCAGAATCAAGTTCTTCGGGAAGCAGGTCTCTATAGAGA AGCTTTGGAACATCTTTGTACCTATGAAAAGCAGATTTGTGATAAACTTGCTGTAGAAGAAACCAAAGGGGAACT TCTGTTGCAACTATGTCGTTTGGAAGATGCTGCAGATGTTTATAGAGGATTGCAAGAGAGAAATCCTGAAAACTG GGCCTATTACAAAGGCTTGGAAAAAGCACTCAAGCCAGCTAATATGTTAGAACGGCTAAAAATTTATGAGGAAGC CTGGACTAAATATCCCAGGGGACTGGTGCCAAGAAGGCTGCCGTTAAACTTTTTATCTGGTGAGAAGTTTAAAGA ATGTTTGGATAAGTTCCTAAGGATGAATTTCAGCAAGGGTTGCCCACCAGTCTTCAATACTTTAAGATCATTATA CAAAGACAAAGAAAAGGTGGCAATCATAGAAGAGTTAGTAGGTTATGAAACCTCTCTAAAAAAGCTGCCGGTT TTATGACAAAATTGGTCAGCCATCTATTGCTTTGGAGTACATAAATACTGCTATTGAAAGTACACCTACATTAAT AGAACTCTTTCTCGTGAAAGCTAAAATCTATAAGCATGCTGGAAATATTAAAGAAGCTGCAAGGTGGATGA GGCCCAGGCCTTGGACACAGCAGACAGATTTATCAACTCCAAATGTGCAAAATACATGCTAAAAGCCAACCTGAT GTGCATGTGGTTCCAAACAGAATGTGCCCAGGCTTATAAAGCAATGAATAAATTTGGTGAAGCACTTAAGAAATG TACCCTTAGATCATATGTGGACTTATTAAAACTAGAAGATGTACTTCGACAGCATCCATTTTACTTCAAGGCAGC AAGAATTGCTATAGAGATCTATTTGAAGCTTCATGACAACCCCCTTACAGATGAGAATAAAGAACACGAAGCTGA AGAAGAAGAAAAAAAATGCAGAAAAAGAAAAGCAGCAGAGAAATCAGAAAAAGAAGAAGGATGATGATGATGA GGAGATAGGAGGTCCAAAAGAAGAACTTATTCCAGAGAAACTGGCCAAGGTTGAAACTCCATTGGAAGAAGCTAT TAAATTTTTAACACCGTTGAAGAACTTGGTGAAGAACAAGATAGAGACTCATCTTTTTGCCTTTGAGATTTACTT TAGGAAAGAAAGTTTCTTTTGATGCTACAATCAGTAAAGAGGGCATTTGCTATTGATTCTAGTCATCCCTGGCT TCATGAGTGTATGATTCGTCTCTTTAATACTGCAGTGTGTGAAAGTAAAGATTTATCTGATACAGTTAGAACAGT ATTAAAACAAGAAATGAATCGTCTTTTTGGAGCAACGAATCCAAAGAATTTTAATGAAACTTTTCTGAAAAGGAA TTCTGATTCATTGCCACACAGATTATCAGCTGCCAAAATGGTATATTACTTAGATCCTTCTAGTCAGAAGCGAGC TATAGAGTTGGCAACAACACTTGATGAATCTCTCACTAACAGAAACCTCCAGACATGTATGGAGGTATTGGAAGC CTTGTATGATGGTAGCCTAGGAGACTGTAAAGAAGCTGCTGAAATTTATAGAGCAAATTGTCATAAGCTTTTCCC TTATGCTTTGGCTTTCATGCCTCCTGGATATGAAGAGGATATGAAGATCACAGTTAATGGAGATAGTTCTGCAGA AGCTGAAGAACTGGCCAATGAAATT**TGA**ACATCACTAAACAAGCAAATGGAATGACTTTGGACCATATCTAGTAT ATAATATTTTTGTCACGCACCTGCTGCATTGCTCTAACTTACACAGAATGAGAGGAGTAAATGTTCTTGCCTTCA GTTTTTAAACTAATTTATATAAAATCTGGAGGCTGTTACAGCTAACAAAGCAGGTGTGTGGCAGAAATATTACTT TAAATTTGTCTTGTGAGATTTTACTATATCTCAGACAGCATAAATGCTGTTTTAGCACTGGATTCTTTCACTGAG CACAAAGAGTTGTTGGGGCTTTAGCATCTGACTGATTTTGTTACGGGGTTGATTCTGACCATAGGAAGTATGCAA TGTGAATCACTATTTACAGAGAAACCTACAACAGATGCTTGATGTTGTAGAAACTGGGACATATAGATACCAAGC **AAAATTATAAGAAACCTATAAGGTGTTCAATACGCTTGTGTTTCCAAAATTCACTGTACATGATCAGTTTGGTGT** TCTTGTACCACAGTTTTTAACTGAAGGAACCAGTTGTAACAGTCTCAATTTTAACTAAAACTTGAAGAACTAAAA

#### 1912/2682 FIGURE 1728B

CAACAATGCAAACCTTTCAGCATTGTTTGGCCAAACTTGTTAAAACTGTAATGCAAGAACCAAATGCACTGTGAT GTGGCACCAACTAATTAGCAAGCATGAATTTTTCACCCAAGAGTGAAAAAAGGAAAATCTACCATGGCTTGAAGT TAAAGAGCAGAACTCCTGACTACCATTCTATGACTGATCAAAAGACTAATAGTTAAAAAACCTCAGCAGGCCTTGT TCACGATATGCAGAAAAAAAGTGCTGCAGTTTAGATACCTCTGGAATTTTTCCACAGTGTCACAGGTTTGTAAT ACTTGAAGCCCTACATTTCTAAGAATATTTTCTTGCTCAGTTGTTTCAGGCAAGCCCCAAGACTTTGTAATTTTT AAAGGGCCCAAGATTTTTTTTTTTTTTTTTTTCAAATAACAGACCAGCTTCTTTTTCTTGCAGTTACAGATGT AATTTCCTTTTTGTTGTCAAACATAAGGTACCAAATATGATGCAATAAATTGTTTTGAAAAAACAGTTGTGAAAT ATTTCAACTAATCTGTGTTGGGCTTCTGTGAAATACACAGGTGGAAACAGAGGTGCAAGCCAGAGGCAATGTAAT ATGCTGTAAGGCTAGTGCAGATGGGAGCTTTTTAGAAGGGGCTAAGTGCTGGTGTCAGGGAAATTCCATAATGAA GTAGAATGCTGCTCCTGCATTAAGATTTCATTGAGGGCAAGGCTGGTGGCAGGTACTATGAATGTAATTCATAAT TTAAAAGGAAAACTAAAAACTATTTTGATTTGGGAAAATGAGCCTTAATTTGTTAAACCTATACACTGAGAACTA GCCTCAGGCTTAATATTCTCATTGCATTTGCAAGATCTGAGCAAATAAGATTAAGTAAAACAAATCAATTGTATA TATAATTGACCTTTTTGTGGAACATGTAGTTTATAGAAAGTATACTCTAAAGGGAATTTGCCGAAGACCTTTTAC TGATTGAACAGTTGTGCTACAATCAACTTTTCATAGTACATGACCTGCATTCCACATCTCAGTCTAACAGTTTAG TAGTGATGTAAAGAGAAGTACAAACCGAACTCCAGTGCTTTGTTATGTTTTATTAACTGGCCCTGTCTCAGGAAC ATCTTAACAGATGGCAAAAAAACAAAAACTTTTTTTCAACTCCTATGAGTGGCAACTGAAGTTCTTATTGTTGGG AAAGAACACTAGTCCTACCTCTGCCACTAATGAGGTGTTTTGGAGGAGGTACCAGCCATATAATAGGGGGTGTATG AGATTGTCTTAGAATGAATATTCATAAGTACTCAGAACTCTTAAGATGCAGATGCCACCCGTGAGGAGCTAAATT TGATAGTGGATACATTGGTGTCAGAGGACCTTGACTGGGTTCATTTTATGTCCAGACATCACCCCTGAAACACTG TGATACTGTGGGGGAAAAACAGGGTTAGAAAAACAAGTGGAAAAAATGGAGTGATGTTGTAATCTAAACAAGTGC CTTATGTTTATTGCTAAGAACTGGTGTTACCAACCCTTTTGAGAAGAAAGGGTCTCTTGACCTGTATTAACATAG GAAAGTAAAGTTCTTTTTGTTTTTTTTTATAAGCTACTCTTGTCATTTCTCGTTGAAAAACTAAAATCTGACTAG CAAAAATAAAGTGTGATCTCTAAT

### 1913/2682 FIGURE 1729

MPAVSLPPKENALFKRILRCYEHKQYRNGLKFCKQILSNPKFAEHGETLAMKGLTLNCLGKKEEAYELVRRGLRN DLKSHVCWHVYGLLQRSDKKYDEAIKCYRNALKWDKDNLQILRDLSLLQIQMRDLEGYRETRYQLLQLRPAQRAS WIGYAIAYHLLEDYEMAAKILEEFRKTQQTSPDKVDYEYSELLLYQNQVLREAGLYREALEHLCTYEKQICDKLA VEETKGELLLQLCRLEDAADVYRGLQERNPENWAYYKGLEKALKPANMLERLKIYEEAWTKYPRGLVPRRLPLNF LSGEKFKECLDKFLRMNFSKGCPPVFNTLRSLYKDKEKVAIIEELVVGYETSLKSCRLFNPNDDGKEEPPTTLLW VQYYLAQHYDKIGQPSIALEYINTAIESTPTLIELFLVKAKIYKHAGNIKEAARWMDEAQALDTADRFINSKCAK YMLKANLIKEAEEMCSKFTREGTSAVENLNEMQCMWFQTECAQAYKAMNKFGEALKKCHEIERHFIEITDDQFDF HTYCMRKITLRSYVDLLKLEDVLRQHPFYFKAARIAIEIYLKLHDNPLTDENKEHEADTANMSDKELKKLRNKQR RAQKKAQIEEEKKNAEKEKQQRNQKKKKDDDDEEIGGPKEELIPEKLAKVETPLEEAIKFLTPLKNLVKNKIETH LFAFEIYFRKEKFLLMLQSVKRAFAIDSSHPWLHECMIRLFNTAVCESKDLSDTVRTVLKQEMNRLFGATNPKNF NETFLKRNSDSLPHRLSAAKMVYYLDPSSQKRAIELATTLDESLTNRNLQTCMEVLEALYDGSLGDCKEAAEIYR ANCHKLFPYALAFMPPGYEEDMKITVNGDSSAEAEELANEI

### 1914/2682 FIGURE 1730

CACAGAAACATGATGTGGAAGTGCTGGAACGGAACTTCCAGACCATCCTGTGTGAGTTTGAGACCCTCTACAAAG CTTTCTCAAACTGCAGCCTCCCGCAAGGATGGAAAATGAACAGCACCCCCAGCGGGGAGTGGTTCACCTTTTACT TGGTCAATCAGGGGGTTTGTGTTCCCAGGAACTGTAGGAAGTGCCCACGGACGTACCGCTTGCTCGGAAGCCTTC GGACCTGTATTGGGAACAATGTTTTTGGGAACGCGTGCATCTCTGTGCTGAGCCCTGGGACTGTGATAACGGAGC ACTATGGACCCACCAACATCCGCATCCGATGCCATTTAGGTCTGAAAACTCCAAATGGCTGTGAGCTGGTGGTGG GGGGAGAGCCCCAGTGCTGGGCAGAAGGGCGCTGCCTTCTCTTTGATGACTCTTTCCTGCATGCTGCGTTCCATG AAGGTTCAGCAGAGGATGGCCCACGGGTGGTTTTCATGGTGGATTTGTGGCATCCAAACGTCGCAGCGGCCGAAC GGCAGGCTCTTGATTTCATCTTTGCTCCGGGACGATGAGAGTATTTCCCATGCTGGAGTCGGCGAGAAGGGCCGA GGCGGGGCCTGGGCAGACTGTGGTCCGGTCCAGTCCCTACCGGTGTTGTTTCCATGCTCAGAAACCTGCCTCAGC GGAAAGCTCTTATTTGGGATTTTATATCATGTCGGGTCCCTCTTTCCCTTGGTTATTGTAAATGGAAACTTTTCG GCTTGTATTTCCTTAGATTTTTTTTTTTTCCTTCCAATCATTTGCTTCAGAGACTCCTTTCTGGCCTAACAGCGC TTCAGTGCTCTGAAATAGAGTAACTAAATGGTTATTTGTCTGAATATAATAATGTAAAACTTCTTGTGGTCATCT TAAAAAAAAAAAAAAAAAAAAACTAAAAACTGCAAACCAGAGAGCTAGAGAACTTGGCCTCTGATGCTGGCACA  $\tt CTGGGGACCCTTCAGCCACCTGACGGCAGGGGGGACAGTCTGCAGCCCCCACACCTGACTGGCTTCAGTAGCCAGG$ TGGAGGGGCTGCCAGACACAGTCAGGGTGGCACACAGTGTCCAGGCCCAGGGATACTGTCACCATCGCTCACCTC ATTCTAAACCTTGTCAGGTCCCTGATGGCAAAAGCATTGGGCCAGTAGGACTGGAGGCTACTCTTTAAACATGGC TTTCCTGCAAAGCTGAAGCTGGTGTCCCCCAGCACCAAGCTGCGGCTCACACAGATCAGCCACGGAACGTGTGAT CCGCTTACCTCACTGCCTACAGAAGCCCTACTGCCAAACTGGGCCTGGAAAATTCCCAGTTTTAGGTGTTTTGAG TCCACAGTGATGAACGTTAAGGCCACCAGGTTGGCTGATAGGAGCTGTAGGGGGGATAGGACCGCGCTCACCCAGC GACATTTGGGGAAAGCCTTTCTCTGGCAAAACTGGAATAATAGATCTGACCAAAGTTTCTGTTTTGCTTTGGAGT GGAAGAGTTGGCCCTGTGTCTTTGTCATGGCACAAAGGTGTGCACTGCGTGACAATGACCCAAGCCAGTGTGTGC TAGTGAGGAGACAGAGAAGACCTACATGCCCAGAGGACCCGTGGCCGTTGTGCTGGTTTTCTGGTCTCCTGTGAA GTTAGCTGATGTGTGAAAGCGTAGCCGGCCAGCCACACTAGAGATGCCTTTTCTGAATAATGTATTATGAGCAGT GTCAGATTTATAAAGCCGAGGAGTGGTTTGGAATATACAGCTGGTCGCAGGTGCAGGTCCAGTGTTTAGATCCAA AAGTGTGCAAAGAGCACGTCTACATTTGAGTAAAATGTCTACACAGATATTTGTCAGTGATGAGAATGCAGGAAA AGGCAGACATTCAAACATACCTGAAGTCTTTTTACTCATTATCTTGTTAAAGAATCACTGAGGTGCATGATTTC TACACATCGTGACTGCTCTGCGTTTACAAAACCAACAGCCCGCGCAGGTACCTAGCTACCTGCATTCATG AAAAAAAAAAAAAAAA

#### 1915/2682 FIGURE 1731

GAATTCGGCACGAGAATGAGCCCCACAGAATAAAGGTTTTTCCTCTTGCTGTGGCCTACTGGAAGCCTTCCTAAC TCTATAGCTGGTAAAGTAGAGCAGAAAGGGCCAGAATGGCTTAAGATGGAGCTAAATCCCTATAGCATTCCATTT TCTGCTCTTGCCTCTTGAACTTAGAAGGCTTGCCCATATATCCTAACAATCTGTTCTCTGAGCTGTTAGGCCAAT CCCTGGTCTCAAACTCCTGACCTCAGGTGATCCACCCACTATGGCCTCCCAAGGTGCTGGGATTGCAGATGTGAG CCACCGTGCCTGGCCAGAAAATCTGGATTCTTATTCCTAGTTCTTCATTTCTGTCACATTCACTTAGTTGACATT ACATCTACATATATTAGCTTTTTCCTACATGAGCCATCTATTTACTTAGTAACCAGTGTTCTTAATGAAGTATTT AGTCTTGGGTTTCTTGTAAAATTTCTCTGCATTCCT**TAG**ACAGTGTACTATACATGAAATATTCTTGTTGACCTA GTAATTTATTATTCCATTTAATTCTTAAACCTATGGCCTTTTTATTGAGCACACTCTTAAATCATTATTTGGC GCTCATGCCTGTAATCCCAGCAATTTGGGAGGCTGAGGCAAGAACTGCTTGAGCCCAGGAGTTTGAGACTAGCCT GTGGGAAAGTTAACATTGGAACTGTTTCTAGTAAAAGATTTTTTTCAGGCTGGGCACGGTGGCTCATGCCTGTG ATCCCAACACTTTGGGAGACCGAGGGGGGCTGGATCACCTGAGGTCAGGAGTTCGAGACCAGCCTGGCCAACATGG AAAAACTCCATCTCCACTAGAAATACAAAAGTAGCCTGGTGGTGGCGCACATGCCTGTAATCCCAGCTACTTGGG AAGCTGAGGCAGGAGAATCACTTGAACCTGGGAGGTGGAGGTTGCAGTGAGCCAAGATCACGCCATTGCACTCCA TATCCAAGCACTGTTCCATGGTCAGCAAGTCATATTTCATAATGTGGATTTTCCAAAATAATTATTGAATACAGC TATTCTATGGCTACTTTTAGTGTTTTTGTGGTATGTGGTGTGGGAGTGTTTATGGAATTACCAGTATCTTAAATT TTCAAAGGAACCTTGGAAGTCTATCACTCTAAATGAAAGTCTGTCACTCTACATGAATTATGTGCTCAAATTTGA CCAACTCAGTTTAAGACACAAAACAGTAATTTGAAGAAGGAAAAATGAAGAGAGTTTCTAGTTTAATGGGTTAAA TTTTTGTTGTTGCAATAGTAAGTTTAGTCTTCTTATAATATTTCTAAATGAAAAATCATAGGTATTTGTTACCAT GTGTGAAGATTACTTTGTTAAAAGCAAAAGTGGTCGTGTGATATGCTAAATGTTAATTACTGATTTTATATGTTT AAATCACGCCAAACAAATTATGTCTGTGCCATCCAGGGTCTGTTGTTAATCTTTTTCTGAGTACTTGGATTGGGA GCTTTTGTGGGAAGAAGCAAGCATCTTTTGCCTAGTAGATGTTAACATTGTGTATTAAACAGTTTCTTTGTAA GACCTAACTAAAGACATTCCTAAGAGAGAACTTAAGTTTTTAAGAAAAGTTGTGAGAAAAATATTCATAAAATATG CAGTATGGGGCCAGTATTCAGAAGTAGAGTTTCTCTCTTGGAAATTAGATTGCAGTCACATTTCTTTGGTTATTT TCTTTCTCTCTCTCTCCTAGAATACCAGGTAAAATAGACATTTACTTTGAGGGACTAATATCCAATAGTGTTAA TGCTTCTGTTCTGTGACCTAGAATGTGTCCAGACATTAAAGATCATGAATACTCATATACATGTAAAAATAGTAA CACTGCTCTGGCATGATTTTGACGTCAGTGTTTATGTAATAACTTCAGTGTTATATTTAAAATAGATAAATTTGT GAAATAACAATTTCTTGGAGACAGTCAACTTTTTATGATTTAATCTAAAGATTGTCATGTACATGTCAACGGATA TCTGAATCCTCAGTGAAACTGTTAAGTTTTCATTAAATGACTCTGCTGCAATACTAGTTTTCTTCTCAGAAAATG 

1916/2682 FIGURE 1732

MHLVDITSTYISFFLHEPSIYLVTSVLNEVFSLGFLVKFLCIP

## 1917/2682 FIGURE 1733

# 1918/2682 FIGURE 1734

### 1919/2682 FIGURE 1735

 ${\tt AATTTAAAATTTGTTTAATGCACTGGAAATAAAATTGGACATATTTCACTGTTTAAAAAATCAGAAACAAAACAA}$ AATACACATACAAACTACATCCCACATGAAAGATTAATATCATCAAGTAAGAAAAATACATAGTTTAAACTACAA TGCTGAAAATATAAAAGGAACCTGGTAGTTCAATGGGGATGGAGAAAACAGAGCATTCCTCTGAGAGCAGAGATC TTGTCATTATTGCAATTAATGCCCAAACAGGTTAAATGTGGAAGAAAGTATGGAGGAAATAACCCCAGCCTTCCT CATACCACTGGATTTCCACATCACCTTTTAACTTATGCTTGAGCTCCCTTTTGAGAAAAAATATTTAAAAAACAAA  ${\tt GCTACCTCATGTGTTTCTCTCATGAGGATTTGCA} {\tt ATCG} {\tt GATAGTTGTACAACCTGGGGACTGTCAGTGACTCA}$ TTGGTATCAGCATATGCTAAAGAAGCTCTTGAATCCAATCTTGAAACCTGATCTCCCTTCGTCAACATTCCCCAA  ${\tt TACCAAACTGGCCCGTTTACCCATACAAATGCACAGTAAAGGGAAGAACAGCGGTATTTTTCCTAGCCAACTGAC}$  $\texttt{TCTATCATTTGTT} \underline{\textbf{TAA}} \texttt{TGTTTGCTGGTTTTTTTCTGGTTTTGTTTTAGAGCAGGGGTGGGAGTGGCTGTA}$ ACTTCACAATCCTAATACAGTAAATGTTTTGCATCTTCCATGTTTTATGCAAAAACAGACATTTAAATCAATAAA GAAGAATCTTTTTTGGAAAGGAAGGATACATATTTTTGTTGTTAATATTTTCTATTTTTGAATGCATTTTATTG GTACAAGACTGTTTTTTTGGTGAAGACATTATTTAAAAAAACAGTCTTGTACCAATAGTCGAC

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# 1920/2682 FIGURE 1736

 ${\tt MDSCTTWGLSVTHWYQHMLKKLLNPILKPDLPSSTFPNTKLARLPIQMHSKGKNSGIFPSQLTLSFV}$ 

### 1921/2682 FIGURE 1737

CCTGTAAAATCACAGATTATGCACTGATAGCCATTGGGCGATACAGCATGACAATAGAGACTGTGGATGTCGGAT GGTGTAAAGAAATCACAGACCAAGGAGCCACCCTGATTGCACAGAGCAGCAAGTCTCTGAGATATTTGGGGCTGA TGAGATGTGATAAAGTCAACGAAGTGACGGTGGAACAGCTGGTGCAGCAGTACCCCCACATCACCTTCAGCACCG TCCTGCAGGACTGCAAGAGGACCTTGGAGAGAGCCTATCAGATGGGCTGGACCCCCAACATGTCTGCCGCCTCCT  $\texttt{CC} \underline{\textbf{TAG}} \texttt{CGCTCCTCGCCTAGTCCACTGGGATCATTCAGCAGAGCAGAGGAGAATTGTACATTTGGGGAGCTG}$ ATCTCTCGGAAGGGTTTTAACTGTCACCTGTCTGTGTGTTCTAAGTATGTGTATTTGTGTCTTGTTTGCATACT GCATACCAAAAGTGCAGTTGTCATTTGTTCCCAAGTGAGCTGGCTTTTTTCTTAGAAATTAAAGATTATGAAAG AAATTGGATGTATTATTCTGAGCTTCTAATTGCTGCCACTTGGAGATGTCCAAGTAAGAAGGCCTTCTTTTACA TGGGATGAATTGTGCACTTCTACTGATGATGACTACAGCAGAAGTGATGTTATACGTACAGGCACTTACACTCTC TCACATATTCACACGTATGCACATCTACACCAGGGCTCTGATCTACTCTAGATCGTTTCCTGACAGAGAAGCCTT CTTCCAGGCCACTAAGGTAGCATGTTATCCACTGTGGCACTGCCTAACTCCGTGTATCCTCGGGTGGCCAACTTG CTATCTGGTGGGTGACTTGGGGGACTAGAAAGAATAAAGCCTTTTCTAAATTTGTTATATAGAGGCAACAGTCTGA ACTCTCCTGGCCAGCTCACGAAAGTTAATTATACATTATTCTACAAATGCATTCTGTTGAGCACTAAATATTTTA GTTGGTTTTATGTTAACATTGTGTTAGCTTTTATTTCCTGGATAGTAACTGGTCAGGATATATTTTAATGATATT ATTATTTTCTTAATTTTGGTAATTATTAAAGTCTATTTCTGAGATACGAGAGGGTAGTCACATTAATAGAAGATT CATGAGTGAGATATAAGTAGACAATCTTTCTACTGTTGTTGCTCTTTTTGCTTTGCTTTGGGTTCTTGAACAGGT GAGTTAAGAAAGAAAATTAGAAAATCTGTTCATTGAAATTCTGTTTACACTTGTCAGAAATAAGCATTTCTTTGT TTAATTAAGGATTGCCAGCTTCAGTTAAGACAAGACCTATCAGTAAATGAATATATGTTTTGATTTAACACATCT TTACAATTAATTCATAATAGGGACTCAGGCTCAAATAACTGTTCCTGTGTCTAGATTTATAATGAGGACATCAGG GAGCCTTTTTAAGCTAAAGAGTGATTATCTTTCACAGTAGAACTAGAAACAAAACCCTAACTTGTGAAGTTGCTA TTTATTTTTCCCTGAGTGAATATAACTGTTATTTGGTCTTTAACAGATATACTGAGGTTTGAGTTTCACTTTCTT TAAGTCTCACATTGCTAACATGACATTAGCTGTAAGAAACAAGATAGCTTTACATTTGAATGCCATTTACTGATT TCTAATGATTCTCTTTTTTTGTAAACAACTGTTTCCTTTGATTATGTCAACATGTTTCTGATGTGGCATTTTTGT TTTAATCCCAATCGGTTAGGAAAATCTAGTCAGTAAGCGCCATGAGTATTCTTCCCATAACTAAATGGGTTTCTA ATTTAATTTGAAGGGAATAAAATTTGTGTAAGAAAAAAGCTGTTTAACATTAATAAACTATATTTCTTCTTACAC ATTGAACTGTATCATTTTCATATCCACTTCCCCACCACTGAAATATCTTATTTCACAATATTTTAACTGATTTTT AATCCAAAACTAATTTATAAGACAGTATGTATAGTAATAGTAGCTTGAGTGAATATGCAAAAGTTTAATTTTAT ATATGTCATACTATATTTTAAATAGTTAAAAAAAGACAAAAGAAGGGAGGCCATCTATGATATAGATGGTACCAT TTCAGTTCAAAGTTGTAATAACCTTTGGAGTGTTACAGTTTGGTTGTCAAATGGTTTCAGAATGTATAATTGATT TTTTTAAATGTTGCATTGTTTGAATCTAAAGTACAGCACTATAACATGCTTTAGCTTGGGGGGTTGGGTGTGGGG TGGGGACTTGCACTTATTCTCTAAAATGTTGACTAATCCAGAAAGCCTGATGCAACATAATCTGGAAAACTGCTT NNNNNNNNNNNNNGCCAGAAAAAGCATCACCTTGAGTGGTCCTGTGATGGTTGTTGAATGTGTTCTCATTAGA ACATGTGAACACGTTTAATGCAGGGCTTTTTATTCTCTCCAAAATGTCAACAGTATTTTCAGAATAAAGACTATG AAATATATTGCTGTAGTGGAAAATTCTGGTCCTTTGTCTTTAATGTCTTTTTGAGTGGATAAAGAAAATTCACCC GGTTTGTAGTTTCTATATTTCTGTGAATCTTTGACCTTGCAATGGGTTGCAATAAAAGAGAAAC

# 1922/2682 FIGURE 1738

 ${\tt GIINDRCVEVIAKEGQNLKELYLVSCKITDYALIAIGRYSMTIETVDVGWCKEITDQGATLIAQSSKSLRYLGLMRCDKVNEVTVEQLVQQYPHITFSTVLQDCKRTLERAYQMGWTPNMSAASS}$ 

### 1923/2682 FIGURE 1739A

TTAGAGGTCCTTTCTGCTTTATAACATTAGGTTCTTCTTGTGAGGCCTTAAGCATTTGCTAAACAGGTTCAAGTA AGTTTAGTAAAGTTTCATTACTGCCATTGATTCAATTATCAAACTGCTTTTGTACATATAAAGAATTCTTCAGAT GCATGGTTTCTATTAACAAGATCCAATGCCTTCCTTTTATTTCCCCTTCAGTTCAACATCTAATATAAAAGATT GCTCTGACTACTACGCAATAGGCAAAAGAAGCAGTGAGACCTACAGAGTTACACCTGATCCCAAAAATAGTAGCT TTGAAGTTTACTGTGACATGGAGACCATGGGGGGAGGCTGGACAGTGCTGCAGGCACGTCTCGATGGGAGCACCA ACTTCACCAGAACATGGCAAGACTACAAAGCAGGCTTTGGAAACCTCAGAAGGGAATTTTGGCTGGGGAACGATA AAATTCATCTTCTGACCAAGAGTAAGGAAATGATTCTGAGAATAGATCTTGAAGACTTTAATGGTGTCGAACTAT ATGCCTTGTATGATCAGTTTTATGTGGCTAATGAGTTTCTCAAATATCGTTTACACGTTGGTAACTATAATGGCA CAGCTGGAGATGCATTACGTTTCAACAAACATTACAACCACGATCTGAAGTTTTTCACCACTCCAGATAAAGACA ATGATCGATATCCTTCTGGGAACTGTGGGCTGTACTACAGTTCAGGCTGGTGGTTTGATGCATGTCTTTCTGCAA ACTTAAATGGCAAATATTATCACCAAAAATACAGAGGTGTCCGTAATGGGATTTTCTGGGGTACCTGGCCTGGTG TAAGTGAGGCACACCCTGGTGGCTACAAGTCCTCCTTCAAAGAGGCTAAGATGATGATCAGACCCAAGCACTTTA ATATGCCTTGTTTCATATTTTTCATAGCTAAAAAATGATGTCTGACGGCTAGGTTCTTATGCTACACAGCATTTG AAATAAAGCTGAAAAACAATGCATTTTAAAGGAGTCCTTTGTTGTTATGCTGTTATCCAATGAACACTTGCAAGC AATTAGCAATATTGAGAATTATACATTAGATTTACAATTCTTTTAATTTCTATTGAAACTTTTTCTATTGCTTGT ATTACTTGCTGTATTTAAAAAATTGTTGGCTGGGTGTGGTAGCTCACGCCTGTAATCCCAGCACTTTGGAAT GTCAAGGCAGGCAGATCACTTGAGGTCAGGAGTTTGAGACCAGCCTGGCCAAACATGTGAAACGCTGTCTCTATT AAAAATACAAAAATTAGCCGGGCATGGTGGTACATGCCTGTAATCCTAGCTACTTGGGAGGCTGAGGCAGGAGAA TCGCTTGAACCTGAGAGGAAGAGGTTGCAGTGAGCCAAGACTGAGCCACTCCAGCATGGGTGACAGAGAA AACTCTGTCTCAAACAAAAAAATAATAAAATTTATTCAGTAGGCTGGATTCTACACAAAGTAATCTGTATTTGGG CCATGATTTAAGCACATCTGAAGGTATATCACTCTTTTCAGGCTATAATTATTTGGGTAATCTTCATTCTGAGAC AAACTTAATCTATATCATTTACTTTGCAACAGAACAACCCTACAGCATTTTGGTTCCCAGACTAAGGGAACTAAT ATCTATATAATTAAACTTGTTCATTTATCATTCATGAAATATAAAATACTTGTCATTTAAAACCGTTTAAAAATGT GGTAGCATAATGTCACCCCAAAAAGCATTCAGAAAGCAATGTAACTGTGAAGACCAGGGTTTAAAGGTAATTCAT TTATAGTTTATAACTCCTTAGATGTTTGATGTTGAAAACTGCTTTAACATGAAAATTATCTTCCTCTGCTCTGTG AGGGATATGTGGGTAATGAAGCATTTACTTACAGGCTATCATACTCTGAGGCCAATTTTATCTCCAAAGCAATAA TATCATTAAGTGATTCACTTCATAGAAGGCTAAGTTTCTCTAGGACAGATAGAAAACATGAATTTTGAAATATAT AAGACTTTTTAAATGTGTTTAATTTCATCATCGTAAAAAGGGATCATCTCAGAGAGAACAGCAGTATTCTGCGTA TTTTTAAAAATGCTCTAGAGTAACATTTGAAGTAATTCACTGTAGTGTATGCCAGTCCTAGAAATAATTTTTTTA ATTTCTGGTGTCTGTTTCTAATACACTAACCAAGTTTTCAAAATATATTTACAAAGATGCATCTTTACCCATTAT TTTAAAATGATTAAGGAGGATAGTTGCTTCAGGTAACAAGCTAATTTTTCAAATATTAGGCCCTTACAGAACTAT TTAGTCAAAAAGTAAGATATTCCTTTAAAATATATAACCCAAAGCTTTCAGTTAAACATGATATATCACAAATAC TATTAAAATGTTAAAGAGAAATGCAAATAGCATTAAATGATGACCAAAATGTAAAATATTGTAGATTTCAAAAGC TGTGTCTCTATTAGGTGGGATACCAAATGTAAATGATGTAACTGACGTTGTTTTTACTTTTTACTTTTTAAAAA AGACTAAAAACGTTTTGATATTATACAATGTATTTGTTTCAGATAAGGTCATTGTCATTTAGTATATAAATTAA ATGCTCATATACACGGTGTCCATTAATTTAATGGGAACTAGGTATAACTTCAGGAGAATTTGGCAAATAATTCAT TAATCCATGTAAATATTCAAAAGCTTGTTCTATCCACATTATTTCAAGGGATCACTTTATTTTCATTATACTTT CACAGCACTTTTCTAGTAAATTCTGTAACACAGAAATTCCATTTTGGAATCATTTCATGTTACCAATAATTCTAG ACTTTTATAACATTTAACATGTTGATGGAAATAGATTACATCTGCTAGAACCTTTTGCCTTAACTATTCACCAAT ATATGCTAATATTCATAAATATGGATTGACTGTTTACAAACATTAGAATCTTGTCTTGGTTCCATTTTGATGGCT AATATTTGTTATCTTAATTAAGACTATTTCTGAGGTCATGATTACTTGAAAATATTGACTAAAACTGGGTCCTTA CCAAATGAATTAATGACACATCTGTTCAATAAATAAAGAGCTTAAATATACAAAACATAAGAAATCTGGGCAACA

### 1924/2682 FIGURE 1739B

# 1925/2682 FIGURE 1740

AAATTCCATACAGAAGACTATAACAGAAATCATATTTAATATATTAAAATTAATACTTCAAATATCTTTCACATT AAGATGATTATCTATTGTGTAAATCTTTCCTAGGTATGTGTGTCTGTTTCTTGATGTGTAAACCAAAACTCTGAA ATATTCTCTTGATCTAACTTTGACTTTTAAAAACTGACATTGTATTGAATTTACATAATTCTCAATCAGAAAAAA AATTACTGTCAGACTGCAATGCAAGTCTGCCCCAATGAAGGCAGGAGGAGGGATGGCTGGAAGTGTCTCAGGGCA CTCTGAAAGTTTAGCAAGCTTATCAAGGAGTCCTCAAACTAAAGCTGGCCAAAAACTTCAGCATAAAAACTATCC TGTCTGTGTATTATATATTTTATTACCAAATTTAATAAACAAAAACCACTTTTGAACCAGGTAATTTTATCTAG TGTGAAAAGAAATTAATCACATGGTCATATACTGGCTAGTGCTCTCTAAAAGTAGACATTAAAATATTTCATAAT TGGAGGGAATCTTTGGAGATTAGTGGCATCTAATCTTGGGGCCTCAGACACCCAAAATCTATATATTGACCAGTG GAAGTTGATGATTTGTTATCAAATTTCAAAGCACCTAATGGAAACCCCACTTCATCTCTGTGAAGATTTTCAGTT CCTTTACAGTTATTTGAAATTATTTCAATTCTGTGGAGCCACTTCAGAAACTCCAATGGGCCTTTGCAATATTAA AATGTGGAGAATGCATTAATCATTATTTAATCAATGAGTTTAAAAAAATAGACAAAAGCTTCTGAAACATGGGACT GTÄATTTACAGATAAGGAAACTGAGAAGATAAATAATTTATTCAATATCACTCGATGGTTCATTAGTAGAAGAGC CAGCATTATGATGTACTCATTTTGTACTCTAGGAGTTGTTAAAAAGGCACTTAATATCTTCTTTTCTTGGGTGTTA GCATTTTTCATTTTTTAAATCATGCTATTTAGTGTTCTTAACATTTGAAACCCAAATGGTTCACATTTTGTTTTT GGATTGCTTTGGGAATGAGTATGTACTGTTAGAGAAGGGCCCAATCCAAACACTAGAATTTTAATAATTTCTACT AAACAAAAACTTTAAAAAGTGTCTTCATTATAAAGAGGTGCCATGCATAAAAGCCTAGGTAGTTTCAAGGTCCAT TCTTCCATTCCTCATGATTTTAGGGTTATCCTCATTCAGATCTACTCTAGTTATAATAGTACTTTAAACAGAGCA CAGAATTAAACCATTAGTATGTGAATCTGCAAAAAGAGAACTTGTTTTAGACTCTTCTACAGTTTAGACTTCAAT GTGCATACTAAATGCATAACATTCGTATCAAATAATTAACATTTATATACAATTAACAAATAAGGACAAATTTA TACAAAACTTCTACTACTGCTATAATTTTTGAAAACATTTAACCCACTAGCAAGAGGTAAGACAGCACTGCCTTT TTAAAAGACAGGTCACTTGAATAGAGAATATAAGATATAACCATAAGTAGGAGTATAAACAATAATTTTTCTTCT TGTGGAATGTTTTTAAATTTCCTTTCTTATATTATTATTCTTCCTTAGGTTTTTTTAGACAGGTCATTTCTTCCT GAATGATTTTCCTTTTTCTTTTATTTTTTTTTTTGAAGGAGGATTATTTACTGGTGGTCTAAAAGAAGTACCTT CAACTTCTTCATAATTGTAGCCAAAGCGGAAATGGAATATTTAATAATTC

# 1926/2682 FIGURE 1741

 ${\tt MKAGGGMAGSVSGHSESLASLSRSPQTKAGQKLQHKNYPVCVLYIFITKFNKQKPLLNQVILSSVKRN}$ 

### 1927/2682 FIGURE 1742

# 1928/2682 FIGURE 1743

 ${\tt MADEEEDPTFEEENEEIGGGAEGGQGKRKRLFSKELRCMMYGFGDDQNPYTESVDILEDLVIEFITEMTHKAMSIGRQGRVQVEDIVFLIRKDPRKFARVKDLLTMNEELKRARKAFDEANYGS}$ 

## 1929/2682 FIGURE 1744

GGCACGAGGGGGCGGCGGTCACGTCGGCCGGCCATGGCTGCATGGAGCCCGGCCGCGGCAGCGCCTCTCCTCCGCGGGATCCGCGGGGGGCGCTCTCCTCCGCGGGGATCCGCGGGGGCGCGCTCCACACCCAAATTCCAAAGAAAAAGTTTCCACGAGCTACAGCTATAAAAGTCACCTGACATTTCAGGCACTAAAAGAAAAATCAAAGAAGATGCATGGATTTCCACGAATTTTCCCCCAAACGCTGACCACGCCCTGGCTGCATAGATGCTGCTGCTTAAAGACCTTGGATGAACTTCACTGACATCATTCTCCCTAAGCAGCTCACCAAAAAATTTATATTTTTGCTCATATACATTTCCCATATTAAAAAATTTATAATTATAATTATAGAAGATGTATAAATCTATTTAGATGTTAAATTAAAAGGAAAACAACTGAAGCTTTTGAAGGGCC

# 1930/2682 FIGURE 1745

ARGGGGSRRPGMAAWSPAAAAPLLRGIRGLPLHHRMFATQTEGELRVTQILKEKFPRATAIKVTDISGTKRRNQR DAWIADIYLCPQTLTTPWLHRCCCLRPWMNFTDIILP

### 1931/2682 FIGURE 1746

GTCCAGCGCGACGAGGAAGAGGAAAAAGAAGTCGAAAATGAGGATGAAGACGATGATGACAGTGACAAGGAAAAG GATGAAGAGGACGAGGTCATTGACGAGGAAGTGAATATTGAATTTGAAGCTTATTCCCTATCAGATAATGATTAT GACGGAATTAAGAAATTACTGCAGCAGCTTTTTCTAAAGGCTCCTGTGAACACTGCAGAACTAACAGATCTCTTA ATTCAACAGAACCATATTGGGAGTGTGATTAAGCAAACGGATGTTTCAGAAGACAGCAATGATGATATGGATGAA GAGTTGGTTCTACGCTTCTGTGAGAAGAACTGTGAAAAGAGCATGGTTGAACAGCTGGACAAGTTTTTAAATGAC ACCACCAAGCCTGTGGGCCTTCTCCTAAGTGAAAGATTCATTAATGTCCCTCCACAGATCGCTCTGCCCATGTAC CAGCAGCTTCAGAAAGAACTGGCGGGGGCACACAGAACCAATAAGCCATGTGGGAAGTGCTACTTTTACCTTCTG ATGTTTGCAAATGCAGAGGAAGAATTTTTCTATGAGAAGGCAATTCTCAAGTTCAACTACTCAGTGCAGGAGGAG  ${\tt AGCGACACTTGTCTGGGAGGCAAATGGTCTTTTGATGACGTACCAATGACGCCCTTGCGAACTGTGATGTTAATT}$ TGATGGGCTTGTTTTTGTAAAATTACCAGAAAACTCAGTGGAGATTTACTGAAAAACTCAGACTTTATTCAGATT AAGTTCCTCTACAAAAAGTAGGGTTCTGTCCCATGTGTCTCTGACACATTTACAAAATACCAGTTTTTTAAAATT TTGGTCAAATTATGAGTGGTTGATTTAAAAACTTTTCCAAGAAGAAAAGCATGGAGTCGTAATTTAAAGAAC 

### 1932/2682 FIGURE 1747

MASRSKRRAVESGVPQPPDPPVQRDEEEEKEVENEDEDDDDSDKEKDEEDEVIDEEVNIEFEAYSLSDNDYDGIK
KLLQQLFLKAPVNTAELTDLLIQQNHIGSVIKQTDVSEDSNDDMDEDEVFGFISLLNLTERKGTQCVEQIQELVL
RFCEKNCEKSMVEQLDKFLNDTTKPVGLLLSERFINVPPQIALPMYQQLQKELAGAHRTNKPCGKCYFYLLISKT
FVEAGKNNSKKKPSNKKKAALMFANAEEEFFYEEQGKPEVLGGPDTRRGLEPVPIQHNGWSVPPVLE

#### 1933/2682 FIGURE 1748

ATCGCCGACTTCGATGATCGTGTGTCGGATGAGGAGAAGGTACGCATAGCTGCTAAATTCATCACTCATGCACCC CCAGGGGAATTTAATGAAGTATTCAATGACGTTCGGCTACTACTTAATAATGACAATCTCCTCAGGGAAGGGGCA GCACATGCATTTGCCCAGTATAACATGGATCAGTTCACGCCTGTGAAGATAGAAGGATATGAAGATCAGGTCTTA ATTACAGAGCACGGTGACCTGGGTAATAGCAGATTTTTAGATCCAAGAAACAAAATTTCCTTTAAATTTGACCAC TTACGGAAAGAAGCAAGTGACCCCCAGCCAGAAGAAGCAGATGGAGGTCTGAAGTCTTGGAGAGAATCCTGTGAC AGTGCTTTAAGAGCCTATGTGAAAGACCATTATTCCAACGGCTTCTGTACTGTTTATGCTAAAACTATCGATGGG CAACAGACTATTATTGCATGTATTGAAAGCCACCAGTTTCAGCCTAAAAACTTCTGGAATGGTCGTTGGAGATCA GAGTGGAAGTTCACCATCACCCCACCTACAGCCCAGGTGGTTGGCGTGCTTAAGATTCAGGTTCACTATTATGAA GATGGCAATGTTCAGTTGGTTAGTCATAAAGATGTACAGGATTCACTAACTGTTTCGAATGAAGCCCAAACTGCC AAGGAGTTTATTAAAATCATAGAGAATGCAGAAAATGAGTATCAGACAGCAATTAGTGAAAACTATCAAACAATG TCAGATACCACATTCAAGGCCTTGCGCCGCCAGCTTCCAGTTACCCGCACCAAAATCGACTGGAACAAGATACTC AGCTACAAGATTGGCAAAGAAATGCAGAATGCT**TAA**AGGCTGAATGTAGGATTCTTCAGTATGTGGAAAGACAAG GATTCAACGTGTGGTCATATGATAAATAAGTGATTTATAAACAAGAGTGATATTTTGCTAGGGCTTTCAAAGTTA ACCGGTTTTCTAGCCTCATGGAATACTGTTGAACCTATAGCGTTGTCTTGATTCTTTTTGTGTCTCTGCCTTGTA TTCTGCCACATTTAATGTTGGTGAGAGAGTGATCTATCCTAATGACATTTACTGTTTAAAAAAAGTTTCCTAGCCA TGAAGCCCTGCTACTGATTTAGACAAGGTATTATGGTCATTACTTTGTACCCCTATCCTTCCAAGCACTTCTGGT ACTTCAGTCGTTTTTACTGATCCACCAACACCTAAAGAGGCTATGCTACAGTCTCTAGCTAAATGGAAGACACAT TCATCCTTCTCCCTCTGACTGCTTTGATCATCATTTATTGCATCGTCATATCATATTTATCGCATCTCATAACTA ACTITCTAAAGTTTGGATTGGGACTTTTCAGGTCCTTTTTGGAGGGCAAAGGAAGTTCCAGCTTCTCTGGGGAAC TTGTTTTTAAATCCAAAGACTTGAACCACATTCCCTGCACATGAACATGTTTGCTTTTATCCCTTCTCTCATTGG ACATTCAAGAACTGCTGACGTACTGTGGATGTAGAGTATAAAACTTGAAAAATGCAGATGTTGAAGGAATAATAG GTATCTTGTGCTTTAATACTTTATGGCAGGATTGTACTATAAGCAAATGAATTAAACAGCTATGTAAATCATAAA GAAAAACTAAAAATGAACCAAAGTGAAAGGATAACTTCCAGGCAGTATCTTTCTATTGTAACCTGTTATTTAAGG TCAAGTGTAACTGTGATAAAATAACCTTTCCCAGGTATATTCGGCAGGTATGTGTGTAATCTCAGAATACACAGG TGACATAGATATGATATGACAACTGGTAATGGTGGATTCATTTACATTGTTTACACTTCTATGACCAGGCCTTAA 

## 1934/2682 FIGURE 1749

MADFDDRVSDEEKVRIAAKFITHAPPGEFNEVFNDVRLLLNNDNLLREGAAHAFAQYNMDQFTPVKIEGYEDQVLITEHGDLGNSRFLDPRNKISFKFDHLRKEASDPQPEEADGGLKSWRESCDSALRAYVKDHYSNGFCTVYAKTIDGQTIIACIESHQFQPKNFWNGRWRSEWKFTITPPTAQVVGVLKIQVHYYEDGNVQLVSHKDVQDSLTVSNEAQTAKEFIKIIENAENEYQTAISENYQTMSDTTFKALRRQLPVTRTKIDWNKILSYKIGKEMQNA

#### 1935/2682 FIGURE 1750

TGGTGAAGTAATTTAAAATATAAATCCATTCAGGTGACAACCCATCATCAAAATTTACAAATTTTCTGATTGAACT CATCTGAATCATCAGTTCCTTGATGGAGAGAGAGAGGAGATGGAATGTGTCTGGTAACCCCAAATGGAGTACAA GAACGTAGATATGTGTCAGCTTTGAGATGGTGTGTCCTGGATTAATACTTTGTCTCCCAATATCACAGAAAAA TACATGCCAGTGACTCTTGAGGTTAAGGTAGTTGGGATGAAATGGCCTCAGGCAATTTCACATTCCCTAATTACC TGGAAAGTTCTACAGTAATTAATATGCAGCTAACTCCTGTTGCCCTCACAAGAGCATCAGCCTTCTAGAATCGGA GCTCCGGAGTGTGAAGATTCAGTATTGATATGATATGTATACCAAACTCCAGCCAACTTACTGCCATTTTTCATA ATCTGAGTGGCTGCCTTGCTTATCCTAAGCTGTGGTTGCAGAAACCGTGGCCATTTATATAAGCTATAACATCAA ATCAGGGAAAAATGAGGAAAAAAAAATAGATTCTGAACCATTTATTGTTGAATAAGTAGAGAAAATCATCAATAAA TATTTATTACATTCTGACAGGGTGTGTGGCATTGTGTTCTATGCCAGAGTGACAAAGTTGATTCACCCCTTTTTG GGGACCTTAATATATTTTTTAAGGGATGTGCCTATGCATTGATGCCTGAAAAATATGTATAAAGAAATGAGGTTG ACTCTTCTGAGCAGTTCATCTTTTCCAGAGGTAAGGGTAGGAGGCCAACTTCAGGATCTGGGTCTAAGCCCGTGG GCAAGCCCTGGCCGAGTGAGCTCCAATGCTAACTCATGTGCCGATCTCTAGAGCAGTGGGAAACTACCCCGCTGC ACCAAATCAAGTAGCTTCACCTTGTGTATGCAGGCCCCAAGTTATTTTTTAGCAATCTTACGAGTGAAATGTTCT GGTGGGTTGAAAAACGTTCTTATTTTAAAGAAAGGTTGTGCTCGCTACACTGCTGGTGTGTGCGTTCTGAGACCT CTTGTATTCAATCTGTGAAGGATATGTGTATTAATCCGTACACCCGTATAGCCTCAATATTTGTCTGAAGACACT TAAATTCTGACCCATAAAGGAAAGTTCTAGAAGCAATATTTTCACTTATTTAACATTCTCCAAACAACATCAAGC ATTGATACACACTGAAGAGTGCGTTTATTTTTTGTATCACTCTAAGTATGTTGGAATATGCAAGGACTGTGGTTC AAATTAGAATGTATAAGGCATATTATAATTTAGTTCATACTGAAAAAGAAATTAACAGAACATTGTTCGGTTCAC ACGTTCCAAAATTTGAGTGATTTCTGGAGTTAGACATAGATTTTCTATTTTGTTTAATTTGTCAAGGTATTTTT 

# 1936/2682 FIGURE 1751

 ${\tt MCVHRCECVCMRACLCAGVCMCIASCLGLPMNVVECYTWRVLVFHQFQDEELHDTVDLETIPLERQPRDVQHPVS} \\ {\tt TRILYLHVYFVAVTLTLIRILQLWTEAFSP}$ 

#### 1937/2682 FIGURE 1752A

CTCGAGGCTCCGCACCACCACCGCGCTTCTGTCCGCCTGCAGGGCATTCCAGAAAGATGAGGATATTTGCTGTCTTT ATATTCATGACCTACTGGCATTTGCTGAACGCATTTACTGTCACGGTTCCCAAGGACCTATATGTGGTAGAGTAT  $\tt GGTAGCAATATGACAATTGCAAATTCCCAGTAGAAAAACAATTAGACCTGGCTGCACTAATTGTCTATTGG$ GAAATGGAGGATAAGAACATTATTCAATTTGTGCATGGAGAGGAAGACCTGAAGGTTCAGCATAGTAGCTACAGA CAGAGGGCCCGGCTGTTGAAGGACCAGCTCTCCCTGGGAAATGCTGCACTTCAGATCACAGATGTGAAATTGCAG GATGCAGGGGTGTACCGCTGCATGATCAGCTATGGTGGTGCCGACTACAAGCGAATTACTGTGAAAGTCAATGCC CCATACAACAAAATCAACCAAAGAATTTTGGTTGTGGATCCAGTCACCTCTGAACATGAACTGACATGTCAGGCT AATTCCAAGAGAGAGAGAGCTTTTCAATGTGACCAGCACACTGAGAATCAACAACAACAACTAATGAGATTTTC TACTGCACTTTTAGGAGATTAGATCCTGAGGAAAACCATACAGCTGAATTGGTCATCCCAGAACTACCTCTGGCA  ${\tt CATCCTCCAAATGAAAGGACTCACTTGGTAATTCTGGGAGCCATCTTATTATGCCTTGGTGTAGCACTGACATTC}$ ATCTTCCGTTTAAGAAAAGGGAGAATGATGGATGTGAAAAAATGTGGCATCCAAGATACAAACTCAAAGAAGCAA  $\mathtt{AGTGATACACATTTGGAGGAGACG}$   $\mathtt{TAA}$   $\mathtt{TCCAGCATTGGAACTTCTGATCTTCAAGCAGGGATTCTCAACCTGTGG}$ AAGGCCCAAGCACTGAAAATGGAACCTGGCGAAAGCAGAGGAGGAGGAGAATGAAGAAGATGGAGTCAAACAGGGAG CCTGGAGGGAGACCTTGATACTTTCAAATGCCTGAGGGGCTCATCGACGCCTGTGACAGGGAGAAAGGATACTTC TGAACAAGGAGCCTCCAAGCAAATCATCCATTGCTCATCCTAGGAAGACGGGTTGAGAATCCCTAATTTGAGGGT CAGTTCCTGCAGAAGTGCCCTTTGCCTCCACTCAATGCCTCAATTTCTTTTCTGCATGACTGAGAGTCTCAGTGT TGGTTGTGAATGATTTCTTTTGAAGATATATTGTAGTAGATGTTACAATTTTGTCGCCAAACTAAACTTGCTGCT TAATGATTTGCTCACATCTAGTAAAACATGGAGTATTTGTAAGGTGCTTGGTCTCCTCTATAACTACAAGTATAC CTAATCTTATTCTCAGACCTCAAGTGTCTGTGCAGTATCTGTTCCATTTAAATATCAGCTTTACAATTATGTGGT AGCCTACACACATAATCTCATTTCATCGCTGTAACCACCCTGTTGTGATAACCACTATTATTTTACCCATCGTAC TTTTATAATACAATTTACAGCTATATTTTACTTTAAGCAATTCTTTTATTCAAAAACCATTTATTAAGTGCCCTT GCAATATCAATCGCTGTGCCAGGGCATTGAATCTACAGATGTGAGGCAAGACAAAGTACCTGTCCTCAAGGAGCT CATAGTATAATGAGGAGATTAACAAGAAAATGTATTATTACAATTTAGTCCAGTGTCATAGCATAAGGATGATGC GAGGGGAAAACCCGAGCAGTGTTGCCAAGAGGAGGAAATAGGCCAATGTGGTCTGGGACGGTTGGATATACTTAA ACATCTTAATAATCAGAGTAATTTTCATTTACAAAGAGGGTCGGTACTTAAAATAACCCTGAAAAATAACACTG TGGTATTGTTTAACAGTTCTGTCTTTTCTATTTAAATGCCACTAAATTTTAAATTCATACCTTTCCATGATTCAA AATTCAAAAGATCCCATGGGAGATGGTTGGAAAATCTCCACTTCATCCTCCAAGCCATTCAAGTTTCCTTTCCAG AGTGTTTCTTATATAGCAGATGGAATGAATTTGAAGTTCCCAGGGCTGAGGATCCATGCCTTCTTTGTTTCTAAG TTATCTTTCCCATAGCTTTTCATTATCTTTCATATGATCCAGTATATGTTAAATATGTCCTACATATACATTTAG ACAACCACCATTIGTTAAGTATTTGCTCTAGGACAGAGTTTGGATTTGTTTATGTTTGCTCAAAAGGAGACCCAT GGGCTCTCCAGGGTGCACTGAGTCAATCTAGTCCTAAAAAGCAATCTTATTATTAACTCTGTATGACAGAATCAT GTCTGGAACTTTTGTTTTCTGCTTTCTGTCAAGTATAAACTTCACTTTGATGCTGTACTTGCAAAATCACATTTT ACCCTTGAATGCCACCAGCTGTCATCACTACACAGCCCTCCTAAGAGGCTTCCTGGAGGTTTCGAGATTCAGATG  $\verb|cctgggagatcccagagtttcctttccctcttggccatattctggtgtcaatgacaaggagtaccttggctttg|\\$  ${\tt CAGTAATTGGTGTGACAGTGTTCTTTGTGTGAATTACAGGCAAGAATTGTGGCTGAGCAAGGCACATAGTCTACT}$ CAGTCTATTCCTAAGTCCTAACTCCTCCTTGTGGTGTTGGATTTGTAAGGCACTTTATCCCTTTTGTCTCATGTT AATAAAATATCTTATTTATTTTGTTACTTGGTACACCAGCATGTCCATTTTCTTGTTTATTTTGTGTTTAATAA

1938/2682 FIGURE 1752B

AATGTTCAGTTTAACATCCCAGTGGAGAAAGTTAAAAAA

## 1939/2682 FIGURE 1753

LEAPHQPRFCPPAGHSRKMRIFAVFIFMTYWHLLNAFTVTVPKDLYVVEYGSNMTIECKFPVEKQLDLAALIVYW EMEDKNIIQFVHGEEDLKVQHSSYRQRARLLKDQLSLGNAALQITDVKLQDAGVYRCMISYGGADYKRITVKVNA PYNKINQRILVVDPVTSEHELTCQAEGYPKAEVIWTSSDHQVLSGKTTTTNSKREEKLFNVTSTLRINTTTNEIF YCTFRRLDPEENHTAELVIPELPLAHPPNERTHLVILGAILLCLGVALTFIFRLRKGRMMDVKKCGIQDTNSKKQ SDTHLEET

#### 1940/2682 FIGURE 1754

GCGGGCGCGAGCCGGAGCCCGAGCCCAGCCTCGTCCCGGAGCCCGCCTGGCTGCTACCC CGACCCGGCTCCGGTCCTGTCCCGGCGCGCGCGCGCCCCGGCCCCGGCCCCGCTCGGCGCCTCCCGAGG TGGCCGGGAAGACCAAATACACGCTGATCGATGAGCAGGACATCCCGCTGGTGGAGAGCTACTCCTTTGAGGCCC GAATGGAAGTGGATGCAGATGGAAATGGTGCTAAGATATTTGCCTATGCCTTTGACAAGAACCGAGGAAGGGGCT AGACCTCCAGCAAGCAGAGGGAGCAAAGCTTGTATTGGCTTGCAATTCAGCAGCTGCCTACAGACCCTATAGAAG AACAGTTTCCTGTCCTAAATGTGACCCGGTATTATAATGCCAACGGGGATGTAGTGGAAGAGGAGGAGAACTCTT GCACCTACTATGAGTGCCACTACCCTCCCTGCACAGTGATTGAGAAGCAGCTCCGGGAGTTCAACATCTGTGGGC GCTGCCAGGTGCCCGGTACTGCGGCTCCCAGTGCCAGCAGAAGGACTGGCCTGCCCACAAGAAGCACTGTCGGG  $\tt AGAGGAAGCGTCCCTTCCAGCATGAGCTTGAGCCAGAGCGA \underline{\textbf{TGA}} CGGGCAGGGGAGCCACACATACTCACAGCCC$ CCGGGCTCTACCCTGGGCACAGCAGAGACAGACTGGTGGTTGAACCTGGAGGTGCCAAAAAAGCCAGCTGCGGGC  ${\tt CCAGGACAGCTGCCGTGAGACTCCCGATGTCACAGGCAGTCTGTGTGTTACAGCGCCCCTCAGTGTTCATCTCCC}$ 

# 1941/2682 FIGURE 1755

MTDFKLGIVRLGRVAGKTKYTLIDEQDIPLVESYSFEARMEVDADGNGAKIFAYAFDKNRGRGSGRLLHELLWER HRGGVAPGFQVVHLNAVTVDNRLDNLQLVPWGWRPKAEETSSKQREQSLYWLAIQQLPTDPIEEQFPVLNVTRYY NANGDVVEEEENSCTYYECHYPPCTVIEKQLREFNICGRCQVARYCGSQCQQKDWPAHKKHCRERKRPFQHELEP ER

#### 1942/2682 FIGURE 1756

1943/2682 FIGURE 1757

MVFNKFYFK

# 1944/2682 FIGURE 1758

### 1945/2682 FIGURE 1759

 ${ t TCCCGGCGGCGGTGCGGCGCGGTGCGAGC} { t ATG} { t CGTGGCTCTTCGGCATTAACAAGGGCCCCAAGGGTGA}$ AGGCGCGGGGCCGCCCCTTTGCCGCCCGCGCAGCCCGAGGCCGAGGCCGGGGACCGCGGCTTGGGAGA GCTGGAGCACTCGCGTTATGCCAAGGACGCCCTGAATCTGGCACAGATGCAGGAGCAGACGCTGCAGTTGGAGCA GAGGAGGAGACCCTGAGCGAGGAGACCCGGCAGCACCAGGCCCAGGATATCAAGACAAGCTGGCCCGGCA GCGCTACGAGGACCAACTGAAGCAGCAACTTCTCAATGAGGAGAATTTACGGAAGCAGGAGGAGTCCGTGCA GAAGCAGGAAGCCATGCGGCGAGCCACCGTGGAGCGGGAGATGGAGCTGCGGCACAAGAATGAGATGCTGCGAGT GGAGGCCGAGGCCCGGGCGCCCAAGGCCGAGCGGGAGAATGCAGACATCATCCGCGAGCAGATCCGCCTGAA GGCGGCCGAGCACCGTCAGACCGTCTTGGAGTCCATCAGGACGGCTGGCACCTTGTTTGGGGAAGGATTCCGTGC GCTGGAGGGTGTTGTGCTCAGTCCCAGCCTGGAAGCACGGGTGCGCGACATCGCCATAGCAACAAGGAACACCAA GAAGAACCGCAGCCTGTACAGGAACATCCTGATGTACGGGCCACCAGGCACCGGGAAGACGCTGTTTGCCAAGAA  ${\tt ACTCGCCCTGCACTCAGGCATGGACTACGCCATCATGACAGGCGGGGACGTGGCCCCCATGGGGCGGGAAGGCGT}$ GACCGCCATGCACAAGCTCTTTGACTGGGCCAATACCAGCCGGCGCGCCTCCTGCTCTTTGTGGATGAAGCGGA CGCCTTCCTTCGGAAGCGAGCCACCGAGAAGATAAGCGAGGACCTCAGGGCCACACTGAACGCCTTCCTGTACCG  ${\tt CACGGGCCAGCAGCAACAAGTTCATGCTGGTCCTGGCCAGCAACCAGCAGCAGTTCGACTGGGCCATCAA}$ TGACCGCATCAATGAGATGGTCCACTTCGACCTGCCAGGGCAGGAACGGGAGCGCCTGGTGAGAATGTATTT TGACAAGTATGTTCTTAAGCCGGCCACAGAAGGAAAGCAGCGCCTGAAGCTGGCCCAGTTTGACTACGGGAGGAA GTGCTCGGAGGTCGCTCGGCTGACGGAGGGCATGTCGGGCCGGGAGATCGCTCÁGCTGGCCGTGTCCTGGCAGGC CACGGCGTATGCCTCCGAGGACGGGGTCCTGACCGAGGCCATGATGGACACCCGCGTGCAAGATGCTGTCCAGCA  ${\tt GCACCAGCAGAAGATGTGCTGGCTGAAGGCGGAAGGGCCTTGGGCGTGGGGACGAGCCTTCCCCATCC} \underline{{\tt TGA}}{\tt GTCCA}$ CAGGGAGATCCACAGCTCACGGAGCCTGGCCGGACCCCTCCCACCCTGCCTTGCCGGCCCCTGCACATTTAG GATATGCTCCTGGGTGGGGACTGGGCTGTGCCCAGGGCCTCTGTCCCCCAGGATGTCTTGTGGTGCGGGTCGGCC GAGGCCGCACTGTCAGCTGGCCGGTCCAAGCCTGTGGCTGGAGCTGGGGTCTGTTTACCTAATAAAGTCCCACAG GTGCCTCATT

### 1946/2682 FIGURE 1760

MSWLFGINKGPKGEGAGPPPPLPPAQPGAEGGGDRGLGDRPAPKDKWSNFDPTGLERAAKAARELEHSRYAKDAL NLAQMQEQTLQLEQQSKLKEYEAAVEQLKSEQIRAQAEERRKTLSEETRQHQARAQYQDKLARQRYEDQLKQQQL LNEENLRKQEESVQKQEAMRRATVEREMELRHKNEMLRVEAEARARAKAERENADIIREQIRLKAAEHRQTVLES IRTAGTLFGEGFRAFVTDWDKVTATVAGLTLLAVGVYSAKNATLVAGRFIEARLGKPSLVRETSRITVLEALRHP IQVSRRLLSRPQDALEGVVLSPSLEARVRDIAIATRNTKKNRSLYRNILMYGPPGTGKTLFAKKLALHSGMDYAI MTGGDVAPMGREGVTAMHKLFDWANTSRRGLLLFVDEADAFLRKRATEKISEDLRATLNAFLYRTGQHSNKFMLV LASNQPEQFDWAINDRINEMVHFDLPGQEERERLVRMYFDKYVLKPATEGKQRLKLAQFDYGRKCSEVARLTEGM SGREIAQLAVSWQATAYASEDGVLTEAMMDTRVQDAVQQHQQKMCWLKAEGPGRGDEPSPS

### 1947/2682 FIGURE 1761

GCCTGGAGGCGCAGTACACCTGCCCCATCTGCCTGGAGGTCTATCACCGGCCCGTGGCCATCGGCAGCTGCGGCC ACACGTTCTGCGGGGAGTGTCTCCAGCCCTGCCGCTGCAGGTGCCATCCCCGCTGTGCCCACTGTGCCGCCTGCCCT TCGACCCCAAGAAGGTGGACAAGGCCACCCACGTGGAGAAGCAGCTCTCATCCTACAAAGCGCCCTGTCGAGGCT ACTGCCCCAAGTTCGTCCCCGTGGTGCCCACATCACAGCCTATCCCCAGCAACATCCCCAACAGGTCCACCTTCG  $\verb|CCTGCCCGTACTGTGGTGCCCGCAACCTGGACCAGCAGCAGCTGGTGAAGCACTGTGTGGAAAGCCACCGCAGCG|\\$  ${\tt ACCCCAACCGCGTGGTGTGCCCCATCTGCTCGGCAATGCCCTGGGGGGACCCCAGCTACAAGAGCGCCCAACTTCC}$ TGCAGCACCTGCTTCACCGACACAAGTTCTCCTACGACACCTTTGTGGACTACAGTATTGACGAGGAGGCCGCCT  ${\tt TCCAGGCTGCTCTGGCCCTGTCTCTCTGAGAAC\underline{\textbf{TGA}}} {\tt AGGGAAGCGCAGCCACCCGCCTGCGTCTGGGGTCAGG}$ GATGTCCCCGCTCCTGTGTCGCACCTGGCACCTGCTCGGGAGCGCACCTCACCGGACTGAGCTCACAGGAGGAGC CTGCACCCGCGCAGAAGGGGAGCCGGGGCCGAGCCTCCGGGCCTGAATACGGGCCAGCCGCCGAGGCCCAGAG CAGGGCCGCCTGGTCCCACCGGCGTCGCTGGGTTCTTCGGTGCTTCTGGCCGAGCAGGCGGCCTACTTGGGCAGG GCTGGACGCTGGGACCTGCGCCGCCGTCTCTTCAAAGCCATGATACCCCCTCGTGGGAAGAAGGGACCGAC GCGCGAGTCGCGCTCCGCAGTCGAGCCGGGAGGAACCCAGGCTGCTGCCCTGCCCAGCCCGACCCTGCCCCGGCC CCGCTTCCACCTTGCGCATTTGGTACTGGCTTTTGTGATACTTAGGAACCCTGGCATCTTTTCTATATTATCCAG TGTGATAATCTTTTCACGTTTTATAGAGCAAAGACAGAGCAGTTACTCTTCATATTGCAATATCTGTGTTTTGACT AGGAATAATAGTATTTTTATGGAACATTTACAAAATTATTTTTTTAAGAAAACAATCAAAACAAGCATTGGGGG GCCCTGGCCACCGCTGTGTGTCTGGGTCCTTGAGGTTTGTACGTTTCTCTTTGATGACCAGGAAGAAATCCCAG CACCCAGCCACAGGCTGTGGCTGCTCCCAGCAGAGGTGGGGCCGGCAGAGAAGGGGCCTCCTCCACCCAGAGTC CTGGCCTTGGCCCGCTGTCACCTTCAAAGCTGACTGTGCCCCGCTGCGGGAGGGGACGGCACCCCAGTGGTGGCA ΑΑΑΑΑΑΑΑΑΑΑΑΑΑΑΑΑΑΑ

### 1948/2682 FIGURE 1762

MAMFRSLVASAQQRQPPAGPAGGDSGLEAQYTCPICLEVYHRPVAIGSCGHTFCGECLQPCLQVPSPLCPLCRLP FDPKKVDKATHVEKQLSSYKAPCRGCNKKVTLAKMRVHISSCLKVQEQMANCPKFVPVVPTSQPIPSNIPNRSTF ACPYCGARNLDQQELVKHCVESHRSDPNRVVCPICSAMPWGDPSYKSANFLQHLLHRHKFSYDTFVDYSIDEEAA FQAALALSLSEN

#### 1949/2682 FIGURE 1763A

CGAGCCTAGGGAGGCGAGGTTCCCGCACCGGATAGGAACATTCTGTTGTTTTCCTCTGCCATCTAGTGGCAAAAG AAAGTAATTTTCCTGGTTTTTTGAATGGATAGCCATACCTTAAAAAGCATCCAGATTGCGCAGTAGTGCTAGCGG  $\verb|CTTCGCGGTTCAGTCCTCCTAACTGACAGCCGCCACTGGTGCTGAGCTGCTAGGAAGCCCCTGTCGGCGAGCTTG|\\$ AGCTCTTCATTGGTGGGCTTAATACGGAAACAAATGAGAAAGCTCTTGAAACAGTATTTGGCAAATATGGACGAA TAGTGGAAGTACTCTTGATAAAAGACCGTGAAACCAACAAATCAAGAGGATTTGCTTTTGTCACCTTTGAAAGCC CAGCAGACGCTAAGGATGCAGCCAGAGACATGAATGGAAAGTCATTAGATGGAAAAGCCATCAAGGTGGAACAAG CCACCAAACCATCATTTGAAAGAGGTAGACATGGACCGCCCCCACCTCCAAGAAGTAGAGGTCCTCCAAGAGGTT TTGGAGCTGGAAGAGGAAGTGGAGGAACCAGGGGACCTCCTTCACGAGGAGGACACATGGATGATGGTGGAT ATTCCATGAATTTTAACATGAGTTCTTCCAGGGGACCACTCCCAGTAAAAAGAGGACCACCACCAAGAAGTGGGG GTCCTTCTCCTAAGAGATCTGCACCTTCAGGACTAGTTCGCAGCAGCAGTGGAATGGGAAGAGCTCCTCTAT CACGTGGAAGAGATAGTTATGGAGGTCCACCTCGAAGGGAACCGCTCCCCTCTCGTAGAGATGTTTATTTGTCCC CAAGAGATGATGGGTATTCTACTAAAGACAGCTATTCAAGCAGAGATTACCCAAGTTCTCGTGATACAAGAGATT ATGCACCACCACCACGAGATTATACTTACCGTGATTATGGTCATTCCAGTTCACGTGATGACTATCCATCAAGAG GCTATGGCGATAGAGATGGATATGGTCGTGATCGTGACTATTCAGATCATCCAAGTGGAGGTTCCTACAGAGATT CATATGAGAGTTATGGTAACTCACGTAGTGCTCCACTTACACGAGGGCCCCCGCCATCTTATGGTGGAAGCAGTC GCTATGATGATTATAGCAGCTCACGTGATGGATATGGTGGAAGTCGAGACAGTTACTCAAGCAGCCGAAGTGATC TCTACTCAAGTTGTGACAGGGTTGGCAGACAAGAAAGAGGGGCTTCCCCCTTCTGTAGAAAGGGGGTACCCTTCTT CACGTGATTCCTACAGCAGTTCAAGCCGCGGAGCACCAAGAGGTGCTGGCCCTGGAGGAAGCCGATCTGATAGAG GTGGÁAACTATTCTATCATAACTACCCAAGGACTACTAAAAGGAAAAATTGTGTTACCTTTTTTAAATTCCCTGT TAAGTCCCTTCCGTAATTTTTATGTTCTTGTGAGGAAAAAAGTAAAACATGTTTAATTTTATTTGACTTTATGAC ATTGCTTTTCAACAAGCAAATGTTAAATGTGTTAAGCCTTGTAGTACTAGTGTTAACTTTCCAAGTAAAGGTG CTACTCATAAGATTTCAGGGTGTTTTCTAACTGAAATCTCACTGTTCTCAGTATGCAAAACCTGAAATCAGATGC CTATGTAAGGAAAGTGCTATTCACCCAGTAAACCCAAAAAAAGCAAATGGATAATGCTGGCCATTTTGCCTTTCT GACATTTCCTTGGGAATCTGCAAGAACCTCCCCTTTCCCCTCCCACAATAAGACCATTTAAGTGTGTGCTAAACA AATTTTTGCAACTCTAATGTCTCACTTTTAAAGGAACAGCTTGATTGCAAAGGAGAAAATAGATAAGCAATGAAT TTATCTCCAACTTCCTAAAGGCTTATGACTTCTAAAAAGTGAATCTATCAGCATTCCACATCAGATTTAAAGCAT AGATAACGCTGGCAGTAAGAGAAATCAAATGCTAAGAGTTGTTGAAGCAGAAGGCGGCTGATTGTTGGTAAGTCA ATGGAAAAGGGGAAGTAATTAAGGAAATTGGTAAGTGGAGGTAGTCAGGAGGTTCTCGTGGTCCTTTACACAGAT  $\tt TTTACAGCTTTGGGTTTCATTTTGTTTAGCTAAAGTCATGGGGGACAACTCTTCAATTTAGAACTTAAGATGAATT$ GGCTTATCCACAAACAGTTTAGTTGTAGAATAAAACTTATGAGTGACATCTGGAAAGTAACAACCATGCTAAGAT GGCAAACACTGGAAACAATTGGGCCACTTGGCTTTCTTTTGCTGTATTGTTTTATAAGCCTGCTTTACCTCCC CGTCTTGGAAACAAGTTTTAGTTTATTGCTTTGGAGACTAGAGCCAATAGTGTAATGTTCTCAAAAGGAAACAGAC CATTTGCAACTAGGGATAGTAAGTACAACATTTTTAACTCTCATTTGGCAGACTACTACTAATCACAGACCACAA GGGTAATGACCAAATTTATGTGGTTGTTACACTTCCATAGTTGTCTTAGCCGAATCCTTCCATATTCTTATGATT ACTTGGGTTAAAGCTTCTGTGAGGACCTTTTGGCTCTTAAGATATCCTAAATATTTAAAATATTTAGATATCCTA AATATAGGATATAGAGTTTGTACCAAATATGAATGAATATTGTTCAAAGCAAGGAGTATGTTAAAATGACCAGAC ACCTGTTTGATAAATAGTTTACTGAACTAGCAGACGTGTGGAAAAAGAATCAGATCTTGATTCTTCTGGGTTTAT ACTGGTTGTAAAACAGAATGATATTAGAAAATGTTTTCCTTGTTTAAGTGGTAGTTGAACATAGAACTTGGGTAT

## 1950/2682 FIGURE 1763B

### 1951/2682 FIGURE 1764

MVEADRPGKLFIGGLNTETNEKALETVFGKYGRIVEVLLIKDRETNKSRGFAFVTFESPADAKDAARDMNGKSLD GKAIKVEQATKPSFERGRHGPPPPRSRGPPRGFGAGRGGSGGTRGPPSRGGHMDDGGYSMNFNMSSSRGPLPVK RGPPPRSGGPSPKRSAPSGLVRSSSGMGGRAPLSRGRDSYGGPPRREPLPSRRDVYLSPRDDGYSTKDSYSSRDY PSSRDTRDYAPPPRDYTYRDYGHSSSRDDYPSRGYGDRDGYGRDRDYSDHPSGGSYRDSYESYGNSRSAPLTRGP PPSYGGSSRYDDYSSSRDGYGGSRDSYSSSRSDLYSSCDRVGRQERGLPPSVERGYPSSRDSYSSSSRGAPRGAG PGGGSRSDRGGGRSRY

#### 1952/2682 FIGURE 1765

# 1953/2682 FIGURE 1766

 $\verb"MIQRQFNHPKFPWPPQSRPAIRFLLQVGVNLHFESCGSFGDLVLFYFALLIKELVE"$ 

#### 1954/2682 FIGURE 1767

### 1955/2682 FIGURE 1768

 ${\tt GCGGCTGTCCGGGGCGGTAGGAGTTGGCTGCGGGG} \underline{{\tt ATG}} {\tt TGCTCAGCCGGGGAGCTGCTGCGGGGGCGGCGACGGCGG}$ GCGGCGGCGGACAGCGGCAGAAGGAGCGAGCAGGATGTTGAAGACTCACAGAACCACACTGGTGAGCCGGT TGGAGATGACTACAAGAAAATGGGAACACTTTTTGGTGAACTGAACAAAAACCTTATCAACATGGGCTTCACAAG GATGTATTTTGGAGAACGAATAGTGGAACCAGTAATAGTCATTTTCTTTTGGGTTATGCTGTGGTTCCTTGGCCT TTGTTTGACATTTGGTAGCCATATATGTAATTGAAGAAGTTATATATTTCACTTTTTGACAACCGAAAAAGTTTG CCTTGTTTCAAATCATGTGCTGGCTGTTTTGTAAGTAAATTTATACATGGATGTCACTTAAAACTAAACTCTTGA TCATAACAGGGTTGAATATATTTTTGAATATACATTAGCTTATTCAAAACTCTTGTTTCACTACTGTGATCTCT GTCTCCTTTATACACCTCTATCCCCATGCCAAATCTTAAGTAACACCACCAGAAAGTGAACAGGGAAAATAACAG GACATGGAATTCAAATCAAGCAATATAGTTCTTATAAAGAGTTCCAATAAAACATTTCAGAAGAAAAAGTATGAA GGAAATATTTGGATTTCAATTGTCCCTACCCAGCCTAAACTAAGGTAAATGATAATTAGCATACACTACCTTAAT CTCCCAGGTTAAATATAACTTTTTTAAAATGTAACATTTGGACCTAGACCTACTTTAATATATCATTTGAAGTTT CAGACAATTTTGGTGCTAATTACTTTTTGTGAGTTTTTAAAGTCTCATAGCCTAGTTGACTGCACCCTATGGTAA ATTTATAATTTTATAGTTCTTTCATAACACTTATTCTGAGTTTTGAAACAATGTATTTCCTATCTTGACATGGAT TTTTTCACAAAAATTTGTATTTTACTGTTGTTTTCAGGAAAAAAATCAGATCATTTTTCTTTGATATCTATATC AGAAAGGTACAATATTAACAGTATAAAACCAAATGCTTAAATTTGGAACTTAGCCAATTTTGATAATCTTTTCT AAGGCTAAAGTCACATCAGTAATTGGCTAGCCATGTTATTAAGGTGTCTTAATTCAGCATTTTCAGGTTTTATAT TGAAATACGCATTTCTTTAAATATTCTTTGAAAATGGAGAATGGCTTTAGTGATATTTTTGGGTTTTGTTAGAGAA CCTAAAATCTTTACACTTTCATCTCAAAGATTATAAAGGAAAGGGGGGGTAGTTAAGATTTAGAATTCAAGTTAAA CCACTTCATAAAGCTTTTACCCAATCTTATTTCTAAACCTCTGTGCATTCTTAGTGTCTTCTCATTCTGAAACAG AAAATAAGGAAAAACATTTAACTTAGTTTTCTAAAATCAGATAATCCTAAACAAAAATGTTAGTCAGGGTCACTA AAAAGTATTGCACATTTATATAAATACAGTCCTTTTAAAATTTGACTTTTAAAAAACAAAAGACTTTGTACGATA TTGTGTTTTTATTGCTTTTGCAATATTTTTATAGTAGCCTTTATGAACTCAGTATAAGTGCAAGTTGTTTGAAAA GGTGTTTTTATTAGTGCACAATAGAATTGTGAGGTTTTCAATAGATGTCATGAGATTTTGTATATCTACATAAAA TATCAGTACATTTTTTCTAATGCTACTGGAAATTTTACTTTTCCTTTGCAACACATAAATGATATGATGTACAA GAAAAAAAAAAAAA

# 1956/2682 FIGURE 1769

 ${\tt MCSAGELLRGGDGGERDEDGDALAEREAAGTEWDPGASQRRRGQRQKESEQDVEDSQNHTGEPVGDDYKKMGTLF} \\ {\tt GELNKNLINMGFTRMYFGERIVEPVIVIFFWVMLWFLGLQALGLVAVLCLVIIYVQQ} \\$ 

## 1957/2682 FIGURE 1770

 ${\tt GGAACGAGGCCGCGACCCCGCCTTCGGCGCTCGCCAGG} \underline{{\tt ATC}} {\tt GATCCCGTACCCGGGACAGACTCGGCGCCG}$ CTGGCTGGCCTGGTCGTCGGCCTCTGCACCCCCGCCGGGGGGTTCAGCGCGATCTCCTGCACCGTCGAG  $\tt CTAGAGAACCCGCAGGAGAACGTGGTGGCCGATATCCAGATCGTGGTGGACAAGAGCCCCCTGCCGCTGGGCTTC$  $\tt CTGGGAGCCACGGACACGGCTGTTTGATGTCCGGCTGAGTGGGAAGACCAAGACAGTGCCTGGATACCTTCGA$ ATAGGGGACATGGGCGGCTTTGCCATCTGGTGCAAGAAGGCCCAAGGCCCCGAGGCCAGTGCCCAAGCCCCGAGGT GCGTCAAGGCTGGGCTCTCGGGCATCCACTCTGCGGAGGAATGACTCCATCTACGAGGCCTCCAGCCTCTATGGC TCTGCTTTTGGGGACCTGACCATCAAGTCTCTGGCGGACATTGAGGAGGAGTATAACTACGGCTTCGTGGTGGAG  ${\tt AAGACCGCGGCTGCCCCCCAGCGTCTCA} \underline{{\tt TAG}} {\tt TCCCTCACCCTTCCGCGGAAAGAGCCCCCTTACTCC}$ TGCGTGGTGATGGGGTCTCCGCCCCACGCCCTGCCGGGCAGGGCTGGACCAGAAGCCAGTGCCTTTAAG TCATTTGTGTCAAAACCCTCTGGGGTCCGGAGGCTGTGCGGGTGTCCTCCTGGCAATAAACACTACCCGGTTCTC **ССАЛАЛАЛАЛАЛАЛАЛАЛАЛАЛА** 

### 1958/2682 FIGURE 1771

MDPVPGTDSAPLAGLAWSSASAPPPRGFSAISCTVEGAPASFGKSFAQKSGYFLCLSSLGSLENPQENVVADIQI VVDKSPLPLGFSPVCDPMDSKASVSKKKRMCVKLLPLGATDTAVFDVRLSGKTKTVPGYLRIGDMGGFAIWCKKA KAPRPVPKPRGLSRDMQGLSLDAASQPSKGGLLERTASRLGSRASTLRRNDSIYEASSLYGISAMDGVPFTLHPR FEGKSCSPLAFSAFGDLTIKSLADIEEEYNYGFVVEKTAAARLPPSVS

#### 1959/2682 FIGURE 1772

# 1960/2682 FIGURE 1773

MLSFFICLLIFVHLLLLSFLISDWPPPTGSAXHKILRLMVVQRLSLLDQRKRWSEA

#### 1961/2682 FIGURE 1774

## 1962/2682 FIGURE 1775

MLERARGCAFVCGPGLRRCGDRLLVTKCGRLRHKEPGSGGGGGVYWVDSQQKRYVPVKGDHVIGIVTAKSGDIFK VDVGGSEPASLSYLSFEGATKRNRPNVQVGDLIYGQFVVANKDMEPEMVCIDSCGRANGMGVIGQDGLLFKVTLG LIRKLLAPDCEIIQEVGKLYPLEIVFGMNGRIWVKAKTIQQTLILANILEACEHMTSDQRKQIFSRLAES

### 1963/2682 FIGURE 1776

# 1964/2682 FIGURE 1777

 ${\tt MFYMVCVLGSGAQPLSELAYLAKLPTLQVGKYNPLFNKAHPLHPVLTTFCECAVIFSCSIARW}$ 

#### 1965/2682 FIGURE 1778

AGCGCGGTGAGGAGGGGGGCCGGTGACTCGGAGACGGTGACTCAGAGGCAGAGCGGCGCAAGGGCCAAGGAGTACT GGCGTCCATGGACCCTGGGGACCCCGTCAGGAGCAGGTGACATCCTTCCCCTTCCACCCTGCTCCTGCTCTACA TCAGTCCTCAAAGCCCAGCAGTGCTCAGCAGGCCTCTGAGCTGTGGGAGGTGGTGGAGGAGCCTCGGGTCAGGCT GGGGACAGAGGGTGTCATGCCTGAGAGGCAGGAAGGTCACCTGCTCAAGAGGAGGAAGTGGCCTCTGAAGGGCTG GCACAAGAGATACTTTGTGCTCGAGGACGGGATCCTTCATTATGCAACAACCCGGCAAGACATCACCAAGGGGAA GCTCCATGGCTCCATCGATGTCCGGCTGTCGGTCATGTCCATCAACAAAAAGGCCCAGCGCATTGACCTTGACAC TGAAGACAACATCTACCACCTCAAGATCAAATCCCAGGACCTATTCCAGAGCTGGGTGGCGCAGCTGCGTGCCCA CCGCCTAGCCCACCGCCTGGACATGCCCCGTGGCTCACTGCCCAGTACTGCTCACCGGAAGGTTCCTGGTGCCCA GCTTCCAACAGCAGCTACTGCCTCAGCCCTACCTGGGCTTGGACCGCGGGAGAAAGTGTCTTCCTGGCTGAGGGA  ${\tt CAGTGATGGCTGGACCGCTGCTCTCATGAGCTCTCTGAGTGTCAGGGGAAGCTCCAGGAACTACACAGGCTCCT}$ CCAGAGCCTGGAGTCCCTGCACCGAATCCCCTCAGCCCCTGTTATCCCCACACACCAGGCCTCAGTGACAACCGA AAGACCCAAGAAGGGGAAACGGACAAGCCGCATGTGGTGCACCCAGAGCTTTGCCAAGGATGACACCATTGGACG GGTTGGTCGTCTCCATGGCTCTGTTCCCAACCTGTCTCGCTACCTGGAGTCTCGGGACTCCTCGGGCCACCCGTGG GCTGCCACCACAGACTATGCCCACCTGCAGCGCAGCTTCTGGGCCCTGGCCCAGAAGGTGCACAGCTCCCTCAG CAGCGTCCTGGCCGCCCTCACCATGGAACGGGACCAACTGAGGGACATGCACCAGGGCTCAGAGTTGTCAAGAAT TTTCAGCTCCTCAACCCTGAGGAGCAAGAAGCTCTGTACATGAAGGGGCGCGAGCTCACCCCCAGCTATCGCA GACCAGCATCCTGTCCCTTGCTGATTCCCACACGGAGTTCTTCGATGCCTGCGAGGTTCTCCTCTCCGCCAGCTC TTCTGAGAATGAGGGCTCAGAGGAGGAGGACTCCTGTACCAGTGAAATCACCACCAGCCTGTCTGAGGAGATGCT GGACCTCAGGGGAGCTGAGCGCTGTCAGAAAGGGGGGTGTGTTCCAGGGAGACCCATGGGGCCACCCCGCCGTCG CTGCCTGCCGGCGGCCAGCGGGCCTGGGGCTGACGTGAGCCTGTGGAACATTCTGCGCAACAACATCGGCAAAGA CCTGTCCAAGGTGTCAATGCCTGTGCAGCTCAACGAGCCGCTCAACACTCTGCAGCGGCTCTGCGAGGAGCTGGA GTACAGCAGCCTCCTGGACCAGGCCAGCCGCATCGCCGACCCCTGCGAGCGCATGGTGTACATCGCAGCCTTTGC TGTCTCGGCCTACTCCTCCACATACCACCGAGCCGGCTGCAAGCCCTTCAACCCTGTCCTGGGGGAGACCTACGA GTGTGAGCGGCCTGACCGAGGCTTCCGCTTCATCAGTGAGCAGGTCTCCCACCACCCCCCTATCTCGGCCTGCCA TGCAGAGTCTGAGAACTTCGCCTTCTGGCAAGATATGAAGTGGAAGAACAAGTTCTGGGGCAAATCCCTGGAGAT TGTGCCTGTGGGAACAGTCAACGTCAGCCTGCCCAGGTTTGGGGACCACTTTGAGTGGAACAAGGTGACATCCTG CATTCACAATGTCCTGAGTGGTCAGCGCTGGATCGAGCACTATGGGGAGGTGCTCATCCGAAACACACAGGACAG  $\tt CTCCTGCCACTGCAAGATCACCTTCTGCAAGGCCAAGTACTGGAGTTCCAATGTCCACGAGGTGCAGGGCGCTGT$ GCTCAGTCGGAGTGGCCGTGTCCTCCACCGACTCTTTGGGAAGTGGCACGAGGGGCTGTACCGGGGACCCACGCC AGGTGGCCAGTGCATCTGGAAACCCAACTCAATGCCCCCCGACCATGAGCGAAACTTCGGCTTCACCCAGTTTGC CTTGGAGCTGAATGAGCTGACAGCAGAGCTGAAACGGTCGCTGCCTTCCACCGACACGAGACTCCGGCCAGACCA GAGGTACCTGGAGGAGGGGAACATACAGGCCGCTGAGGCCCAGAAGAGAAGGATCGAGCAGCTGCAGCGAGACAG GCGCAAAGTCATGGAGGAAAACAACATCGTACACCAGGCTCGCTTCTTCAGGCGGCAGACGGATAGCAGCGGGAA  $\texttt{GCTCTGG} \underline{\textbf{TAG}} \texttt{CCCTGGCCCCGGGGGGCAGGAGGCTCTGGTTCCTCACTCCTGCCTCCACCCCCTACCATGGAC}$ ACATGGGTGAGGCCGGGCTCCCCGCCTCACTGCCCTTCTGCCCATCTCCAGCATCTTCTTCCCCTTCCCTGGCCC  $\tt TGCAGGGCCTTCTCCAGCTCCCTTTGGTTAGTCCCTGGCCATCCCTCCTGTCCTGGATCCCTTCTCCCTAACTGC$ CCAGAGTGGAGGAGGCCTCTCCATGAGGAGGGGAGCAGCCCAAGGCACCTGTCCTCTGACCCACCGGCAGCGAGT GCGCAGGTGTGAGTGTAAGTTCATGTAGGAGAGTGTATGCGTGTGCGCCTGTGCCCTGCTTGCAGGCAAGCAGGG CTCCCTCATGTAGCCCCGCCTTCCCCCTGCTGGGGGTCCACCACATCGCTGCTCTTTCTCACAGTCTGCCTCTGA TGAGGGCGAATTGCTATGACATTCCAAGCTCCAATAAAGACTGTCCCAG

## 1966/2682 FIGURE 1779

MDFQERDPPFLPESAQSSKPSSAQQASELWEVVEEPRVRLGTEGVMPERQEGHLLKRRKWPLKGWHKRYFVLEDG
ILHYATTRQDITKGKLHGSIDVRLSVMSINKKAQRIDLDTEDNIYHLKIKSQDLFQSWVAQLRAHRLAHRLDMPR
GSLPSTAHRKVPGAQLPTAATASALPGLGPREKVSSWLRDSDGLDRCSHELSECQGKLQELHRLLQSLESLHRIP
SAPVIPTHQASVTTERPKKGKRTSRMWCTQSFAKDDTIGRVGRLHGSVPNLSRYLESRDSSGTRGLPPTDYAHLQ
RSFWALAQKVHSSLSSVLAALTMERDQLRDMHQGSELSRMGVSEASTGQRRLHSLSTSSDTTADSFSSLNPEEQE
ALYMKGRELTPQLSQTSILSLADSHTEFFDACEVLLSASSSENEGSEEEESCTSEITTSLSEEMLDLRGAERCQK
GGCVPGRPMGPPRRRCLPAASGPGADVSLWNILRNNIGKDLSKVSMPVQLNEPLNTLQRLCEELEYSSLLDQASR
IADPCERMVYIAAFAVSAYSSTYHRAGCKPFNPVLGETYECERPDRGFRFISEQVSHHPPISACHAESENFAFWQ
DMKWKNKFWGKSLEIVPVGTVNVSLPRFGDHFEWNKVTSCIHNVLSGQRWIEHYGEVLIRNTQDSSCHCKITFCK
AKYWSSNVHEVQGAVLSRSGRVLHRLFGKWHEGLYRGPTPGGQCIWKPNSMPPDHERNFGFTQFALELNELTAEL
KRSLPSTDTRLRPDQRYLEEGNIQAAEAQKRRIEQLQRDRRKVMEENNIVHQARFFRRQTDSSGKEWWVTNNTYW
RLRAEPGYGNMDGAVLW

#### 1967/2682 FIGURE 1780

# 1968/2682 FIGURE 1781

MAAVVAVCGGLGRKKLTHLVTAAVSLTHPGTHTVLWRRGCSQQVSSNEDLPISMENPYKEPLKKCILCGKHVDYK NVQLLSQFVSPFTGCIYGRHITGLCGKKQKEITKAIKRAQIMGFMPVTYKDPAYLKDPKVCNIRYRE

#### 1969/2682 FIGURE 1782

TATGTTAAAGTCTGGGAC<u>ATG</u>TTAAAAGGAGGACAATTGCTAGTATCTTTGAAAAATCATCACAAAACCGTGACA TGTTTATGTCTAAGCAGCTCTGGACAGAGGTTACTTTCTGGCTCACTGGATAGGAAGGTGAAAGTATACAGCACA ACTTCCTACAAAGTAGTCCACAGTTTTGATTATGCAGCTTCAATTTTGAGTCTTGCCCTTGCACATGAAGATGAG ACAATAGTTGTAGGAATGACCAATGGAATACTGAGTGTTAAACATCGGAAATCTGAAGCAAAGAAGGAATCACTT CCCAGAAGAAGAAGCCTGCATATCGAACCTTTATTAAAGGAAAAAATTACATGAAGCAACGGGATGACATTTTG ATTAACAGGCCAGCAAAGAAGCACCTAGAATTGTATGACAGGGATCTGAAACATTTTCGGATCTCTAAGGCACTC GATAGAGTTCTTGGTCCCACTTGTACAATAAAGACACCCGAGATTACGGTGTCCATCATAAAGGAGTTAAATCGA AGAGGAGTCCTTGCAAATGCGCTTGCAGGTCGGGATGAGAAGGAAATCAGTCATGTTCTTAATTTTTTGATAAGG TTGGAACACACATCTGATGGATTTCCAGAGAATAAGAAGATAGAATCA<u>TAG</u>TGTCTGCTAAATAAGACATATAAG GACTCTGAAGTTGGAATAGATTTGACTGTATTAAATGTTGGCGAGAGACTCTCTTTGATACATTAAAAAAACTGT GTTTTCCATGTAATATTTTGAATTATAGCATCTTCACCTAGAAGATCTCAATTGTCTTAGTCACAGAGTAGGTTT ATCTGGGATGGATATTAATTTTAATACAGGAGTGTTCTGTATCAACATTTGGGTTGGTATTCAGATGGGAATTCA AATATGAATCCTCTCTGGAGAGGGTCCAACTGGGAATCCTGCTAAAGGAGCAAAGCCTTGTATTACCTCTGGAAG TGCTTAGCTTGCTTCCTGTCTCCTTGATATCTACACTTGTCTTAGATCACATGCCCTGCTTCAGCTGGTAATGGG TTTCACCTTGTTTCAGGTCAGAGGAATGATAGAATTTGTCATTTTTCTTACAACAGCCTTTCAGACTATTCTTCA TATGTTTCAAGCTAATCTTGTAGCTAAGCTACCTAATCCTCTGAAAACTGTTTTCTCTGATTTGTATTTAGATTC CTCCCCCATTATTCACAATCATATTGTATTTCGGAACCCCAATGCAGAGCAGTTTGCTTTGAAAAATAGTTGTT CCCAGGCTGGAGTACAGTGATGCAATCTCAGTCCACTGCAACCTCTGCCCTCCCGGGTTTAAGCAGTTCTCCTGC CTCAGCCTCCTGAGTAGCTGGGATTACAGGTGTGCCCCACCACGCCTGGCTAATTTTTGTAGTTTTAGTAGAGAC GGGGTTTCACCTTACCGGGCTGGTCTAAAACTCCTGACCTCAAGTGATCTACCTGCCTCTGCCTCCGAAGTGCT TGGATTACAGGTGTGAGCCACTGTGTCCAGCCTGTAACTATTATTTTTTTATAAAGAGAGATTCTTATTTTCTTG GCTTTTTGATGTATCTGTTCCTGATAGATAATCATTGGCTAGTAACTCCTAGTACACTGGTTTCACAGTTGCTAC CTCTCCTGCTTTTCTCTAATTATTACGCCAACTCAAGTAGTTAAAAATCAGTAAGAAAAATGTCTTGAGCTAGAA GTATTAAGTTTAACATATTAAATTAATTTAACATTTAGACTAACATTTAACATTTAAATTAATATGTTAAGTGAAT ATACTTAATATTCTAGTACAGGTATGCTTGGAAATAGGGCGTTTCCTTTTCATGAATTGATTTCGTACAGCAC AGTGGCTTATAAGGAACCAGCAGTGTTTTTCCCTGAGTAATTATGAACTTAGTCAAGATCAGAAGCTGGGTTTTG GGGTTGAGAAGAGTTCATTTATTTAAATAAAGTTTCTATTTAAAAACCTTT

## 1970/2682 FIGURE 1783

MLKGGQLLVSLKNHHKTVTCLCLSSSGQRLLSGSLDRKVKVYSTTSYKVVHSFDYAASILSLALAHEDETIVVGM TNGILSVKHRKSEAKKESLPRRRRPAYRTFIKGKNYMKQRDDILINRPAKKHLELYDRDLKHFRISKALDRVLGP TCTIKTPEITVSIIKELNRRGVLANALAGRDEKEISHVLNFLIRNLSQPRFAPVLINAAEIIIDIYLPVIGQSPV VDKKFLLLQGLVEKEIDYQRELLETLGMMDMLFATMRRKEGTSVLEHTSDGFPENKKIES

#### 1971/2682 FIGURE 1784

CGGGCCCGGGGTCCTTCCCGCCTCCGCGGCCGCCGCTTTGTTTCCCCTGCCTCTGCGCTTCGGGCGACTCG GCAGCCAGGGCATCCCGCCGCTGGGACCTGGACCCGCTCAGTGGGCACCCCTCAGGCTGCTCCATCGAGCCTG TGCCCTGCGCCCCGCAGTGCCGGCGTCCCCGCGAGGGTCGCCCTGCTCCCCACGCCCCGGAAGCCGTGT CGGGGGACCCAGGAATTCTCTCCGCTGTGCCTGCGTGCCCTCGCCTTCTGCGCCCCTTGCCAAGCCCCGGGCGTCC TCTCTGGGCCCGGGGCCTGGGGAGCTGGCGGCGCGCTCCCAGTGCTGCGGGGCCCTCAGGCCCCCTGCGCCCCT GGCGTTCGCTCCTGTGCACCTCCGGGCCGCTGCCCTGCGCCCCCGCACCCTCGGGAATCTACGACCAGCTTCGCC TCGGCCCCGCCTCGCCCGGCCCCGGGTCTCGAGCCTCAGCGTGGCCCAGCCGCCAGCCCGCCTCAGGAACCCAGT TCCCGGCCTCCGTCGCCACCTGCGGGCCTCTCCACCGAGCCCGCGGGTCCCGGGACGGCCGCCGCCGTTCCTG GCCAGCCCGGCTCCGCCCCCGGAGATCTCCGCCAGGAACATTTCGATCGTCTGATCCGCCGGTCGAAACTT TGGTGTTACGCGAAGGGCTTCGCCTTGGACACTCCGAGTTTGCGCCGGGGGCCAGAGCGGCCGCCTGCGAAAGGG CCGACGCTCCCCACCACGAGCACCTTCAGCCTCCTCAACTGCTTCCCCTGCCCCCGGCCCTGGTGGTGGGGGAA AGGTGGCAGATGGGGGGTCCCGCTGTCCCTGAGCCCCCTGGCCTCAAATTCTGGGGGATCAACATGGATGAAAGC AGCACCTAAGTTTTCGGGGTGACAGTCCCTCCCCCTCATCCTTTGCAGAGGAACCCAGGGCTGGAGTCGGGAGAA GGCTGATGACATAGATTCCAATCCCTGCCTCCTTCCATCTCGGACCGTTGGAGGCAGGGCCTGCACCCCAGTGGG CAAACCGGTTGTTACTGTGTGTGGGCGAGCCTGGGGTGCGGGGCTGTGGTGGGGGGTGGGGAGATGATTGGCAG CTCCCTGGGGGCATCCCCCACCCCCACTGTCCAGGCCTTTAACCCTTTGCTCCCCTCAGGCCTTCCCTAACGCTC CAAGCACCGCTGGAGCCTTTAATGGGTGAGGGAACTTGGGTAAGAGGAAGATCACCCCCTTCCTGTCCCCTTTCT AGGCCCCCTCAAGTGCAGGTGACCCTTAATTGGTGAGATCTTCAGCCTCAGCCGCCGACCTTTCCCTTTTGTCCA GTTTTGGAGTTCCCGTTTTTTCCTTGTTTGCTTTCCGAGTGTAAGGTCTGGCCGGTGAGAAAGATTTCCCCCAAC CTTGATTAATCAGCCCCCTCCCCCAACTTACTTCCCTTAGGACGGGTAGGGCTGAGGGACCTCCTCTCCTGGAAA GTGCTTACTTTGCCTGGGGAAGGGGCTAGACACTGTCCCAGGGAAAGTAATAGAAGGTGGAAGAAATCAATAAAA CAAGTCCATTCTTTGGACACCCAAACTCAGCCCCCTTAAAGAGTGGAAACAAAACAAGCTGCACTTTGCAGAGGT GGTAAATGAAAGGACTCTTGGCCTAACTTCAAGAGTCCCCTGGGGTTTGAAGGGGCAAAGTTTGAGTCTGGATGG AACCTGGGCTGAGGTACCTTAAGCTTCCCCCCGCAACACCCCCAGCCTCAGGGATTGCGGGAGTTGTCAGAGATCT GATGGATCCGAAAGGGGCCAGGGGCCAGGGGATTAGGTTTGGGGTCAGAGGTTCTGTTTTCCAGGGGAGGGTGAGA TAGGCCTGGATCATGCCCTCTGCCATGCCCTCCAGCTAGGAGGATCTTGAGTCAGAGAGGATTGGAAGTGCTTTC TCCTCCACCCAGGTGAGGTCAGGGGAGCTTAGGTCTTAGGGAGATGGCAAGTTGAGGTATGAAGGGAAGCTGGGG CTTTTGGAGCTGCCGAACAACTGAGGGACCCAGTGCGCCTTCCATCCCGCACTAGTGAATAGCGCCCCCTCTTCC CCCGAAAACGAGGTGCGAGAGGAACAATTCCCACGCTGGGGAAGGACTTGTCTCCTTTTCTGTGAAAATGCTTTG TAAAAAGTTGTTATTGTTTGCATAGAGCAGATTCTTGAGAAAAACTGTTTTGGACCATAAAAGTTTTGTTTT

## 1972/2682 FIGURE 1785

METLCPAPRLAVPASPRGSPCSPTPRKPCRGTQEFSPLCLRALAFCALAKPRASSLGPGPGELAARSPVLRGPQA PLRPGGWAPDGLKHLWAPTGRPGVPNTAAGEDADVAACPRRGEEEEGGGGFPHFGVRSCAPPGRCPAPPHPREST TSFASAPPRPAPGLEPQRGPAASPPQEPSSRPPSPPAGLSTEPAGPGTAPRPFLPGQPAEVDGNPPPAAPEAPAA SPSTASPAPAAPGDLRQEHFDRLIRRSKLWCYAKGFALDTPSLRRGPERPPAKGPARGAAKKRRLPAPPPRTAQP RRPAPTLPTTSTFSLLNCFPCPPALVVGEDGDLKPASSLRLQGDSKPPPAHPLWRWQMGGPAVPEPPGLKFWGIN MDES

### 1973/2682 FIGURE 1786

 $\tt CGCCGTCTCCACCTCCTCGCGTCCGTAATCAGTGACGAGGTCCGCTACGTAAATCCCTTTGCGGCGGACAA{\color{red} ATGA \cite{ATGA} \cite{ATGA} \cite{ATGA} \cite{ATGA} \cite{ATGA \cite{ATGA} \cite{ATGA} \cite{ATGA \cite{ATGA} \cite{ATGA \cite{ATGA} \cite{ATGA \cite{ATGA} \cite{ATGA \c$ CCATGGAAACAGTTGAATCCCAGCATGATGGAAGTATAACAGCTTCTTTGACAGAGAGCAAGTCTGCTCATGTGC AGACTCAGACTGGCCAAAATTCAATCCCTGCTTTAGCTCAGGTAGCAGCAATTGCAGAGACAGATGAATCTGCAG AATCAGAAGGTGTAATTGATTCTCATAAACGTAGAGAAATCCTTTCACGAAGACCCTCTTATAGGAAAATACTGA  ${\tt GATATGATACAGTGCTAGCTTTAAGTCTTCTC} \underline{{\tt TAG}} {\tt TTATATTGAAGCAACTCAGGTTTTGGCATTAAATTGTTCC}$ ATTTTAAAATGCATCATTAATACCTAAACTGTATCATAGAATGAAAGTATATGTTAAAAAGTGAGATCTTTGTAT TGACAGCTGTCATATAATTTTGAAAAGTAAAAATTTTGACTGCCGAATATAGAAGAAAATTTTGGGGTAAAAAGG ACATAAATGTCTGTATTTCATTCTTGTTGGCTTTTGTTACCCACAATTACATACTATTCTTACTAATCTGAGAGT TTTCTAAAGTATGTTTCAATGTTTCACTACTCTCTACTCTGTTAATTTGTGCTACAGTTTTTCCTAAAAGAGAA Α

## 1974/2682 FIGURE 1787

 ${\tt MTMETVESQHDGSITASLTESKSAHVQTQTGQNSIPALAQVAAIAETDESAESEGVIDSHKRREILSRRPSYRKILLSSDVPGVPKIEEERSEEEGTPPSIATMAVPTSIYQTSTGQYSMYAAIRYDTVLALSLL}$ 

### 1975/2682 FIGURE 1788

AC $\overline{ATG}$ ACGGGCACGCCAGGCGCCGTTGCCACCCGGGATGGCGAGGCCCCCGAGCGCTCCCCGCCCTGCAGTCCGAGCTACGACCTCACGGGCAAGGTGATGCTTCTGGGAGACACAGGCGTCGGCAAAACATGTTTCCTGATCCAATTCA AAGACGGGGCCTTCCTGTCCGGAACCTTCATAGCCACCGTCGGCATAGACTTCAGGAACAAGGTGGTGACTGTGG ATGGCGTGAGAGTGAAGCTGCAGATCTGGGACACCGCTGGGCAGGAACGGTTCCGAAGCGTCACCCATGCTTATT ACAGAGATGCTCAGGCCTTGCTTCTGCTGTATGACATCACCAACAAATCTTCTTTCGACAACATCAGGGCCTGGC TCACTGAGATTCATGAGTATGCCCAGAGGGACGTGGTGATCATGCTGCTAGGCAACAAGGCGGATATGAGCAGCG AAAGAGTGATCCGTTCCGAAGACGGAGAGCCTTGGCCAGGGAGTACGGTGTTCCCTTCCTGGAGACCAGCGCCA AGACTGGCATGAATGTGGAGTTAGCCTTTCTGGCCATCGCCAAGGAACTGAAATACCGGGCCGGGCATCAGGCGG ATGAGCCCAGCTTCCAGATCCGAGACTATGTAGAGTCCCAGAAGAAGCGCTCCAGCTGCTCCTTCATG**TGA**A TCCCAGGGGGCAGAGAGGGCTCTGGAGGCACACAGGATGCAGCCTTCCCCCTCCCAGGCCTGGCTTATTCCAA GAGGCTGGTCTTGAATTCCTGAGCTCAAGCAACCTGCCGGCCTCGGCCTCCCAAAGTACTGGGATTACACGCAGA AGCAGCTGAAGTGTTTAGCCCTCCTGGGTTAAGAGCCAGATAAGGAGAAATCCCTTTCCTAGGTTTGGAATGTGT TGTGAAAAAAAGAGAAATCCCTGGCTCCTGGAGCTGGTGGGAGACAAGATTAAGCAAACCTCCCCTGACATGTA TCCCTTTGACCCCAAGCTCTGCCTCCCTGACCACCCATGCCCTTTCCTTTAACTTCTCAAACAGATACCAGG GCCTAAACTGCTTTACCTCCCCTCCTACTGAGTCAGGTTAGGTGGTGGGAGGTCACCCATTTCCGAGTTAAACCA ATGCAATATGAGTAAAACAAAGTCATGTGGGTATGTCTGGGGTAGAGAGGGGGTAGCAAGTTCATGTGTCCTCC TTGGTCACATATCTCCCAAAGCTCCGATCCCTGCCATGGGAAGTGGACAGGAAACATGAGGTCATGACCTGCAGG CATCTTTACTGCAGCTCTGCCGGCCTGGAGGGGGAGAGAGGGGGAGAAGAAGTATGCGCTGCACATTTCTGAGGCT ACTGCATTTGCTTTCAAGGCAGAAATCTTGCTCTGAGCAGTCAGCGGCTCCAGTTTGGGCCCGATAAGGAAGTTC TCCGTGGCCTCCCTCAGGCAGAGCAGGGAGGAGGCTGACATTGCCAGTCTCTTCTGGGGCCCAAGGCAGGTTGCA GGAGATCCAATCCCATAGACAGCTCTGGGCCTCTTGCATTTGAGTTTTTCAGAATTAAACTGCAGTATTTTGGAA 

## 1976/2682 FIGURE 1789

MTGTPGAVATRDGEAPERSPPCSPSYDLTGKVMLLGDTGVGKTCFLIQFKDGAFLSGTFIATVGIDFRNKVVTVD GVRVKLQIWDTAGQERFRSVTHAYYRDAQALLLLYDITNKSSFDNIRAWLTEIHEYAQRDVVIMLLGNKADMSSE RVIRSEDGETLAREYGVPFLETSAKTGMNVELAFLAIAKELKYRAGHQADEPSFQIRDYVESQKKRSSCCSFM

## 1977/2682 FIGURE 1**790**

### 1978/2682 FIGURE 1**791**

## 1979/2682 FIGURE 1**792**

$$\label{thm:construction} $$ \begin{align} MEAFLGSRSGLWAGGPAPGQFYRIPSTPDSFMDPASALYRGPITRTQNPMVTGTSVLGVKFEGGVVIAADMLGSY\\ GSLARFRNISRIMRVNNSTMLGASGDYADFQYLKQVLGQMVIDEELLGDGHSYSPRAIHSWLTRAMYSRRSKMNP\\ LWNTMVIGGYADGESFLGYVDMLGVAYEAPSLATGYGAYLAQPLLREVLEKQPVLSQTEARDLVERCMRVLYYRD\\ ARSYNRFQTATVIEKGVEIEGPLSTETNWDIAHMISGFE\\ \end{align*}$$

## 1980/2682 FIGURE 1793

#### 1981/2682 FIGURE 1**794**

 $\texttt{GC} \overline{\textbf{ATC}} \mathtt{AACTTGGGGGTCAGCATGCTGAGGATCCTCTTCCTCCTGGATGTAGGAGGAGCTCAAGTGCTGGCAACAG$ GCAAGACCCCTGGGGCTGAAATTGATTTCAAGTACGCCCTCATCGGGACTGCTGTGGGTGTCGCCATATCTGCTG GCTTCCTGGCCCTGAAGATCTGCATGATCAGGAGGCACTTATTTGACGACGACTCTTCCGACCTGAAAAGCACGC CTGGGGGCCTCAGTGACACCATCCCGCTAAAGAAGAGGCCCCAAGGCGAAACCACAATTTCTCCAAAAGAGATG  ${\tt CACAGGTGATTGAGCTG}$ CATCTCAGGATGTTCTGCATTCAAACACCCAAGGCTGGTAATGAACTTTCACATGGACTGAATATTGGAGGCAAA TAATAGAAGGAATAGAATATACAGTGCCTCTGTCCTGAAGGAAAATATCATGCCTCTTCTGGAAGAAACGGACTG CACAGAGGAAGGATTGAGCAATTTAGCCTGCAGTGGAAGAAGGTGGACACCAAAAGCTTCACCCTGTGTTGGAGC TGTTCATGCTTCCATGAGGCCATGGTGTCCATGTCCGTGGAACCTACCACAGAAAATGGCTCATGAAAAGGGGAA TCCGACCCAACACACGCTTCCTACACACTGCCATCTTATCAACAGTTAGGCACTACTTTGTAGAACGATTAGCT TCACCCTCTTAGCTGCCAGGAGATCCCTTCTTAAAGATGGACTATGTGAAGATTCGGGAGTCCTGAAACATGGGG ACTCCGGGATGGTCTCTAGCCCTATCGATGATGAACACTGGCCTTCTGGAGGGGAAATGGCAGTCTGGGCTGGCG TGGTAGGAAGGGCTTTGGTGTTCATGGAATGGGCCTGCTGCTCTCAGACCTTCAAAGGATGGAACCAACGAAGGA CCAAATGAGAAAGCAGATGCTGTGCCTTGCAGAGGGCCATGAATGTCAGTTATTATTTTTCTCCTTATACAATTA TTTTGTGGTTATTATTACAATGTACATGGCTGTTGCATAGAAGACATGACTGGTGGAGGCTGAGGAAAGCCATGA CATTCTACAATTGCCATCAGGCTAAGGCCCCGTGAGCATTTCTCTCCCTTGTAATATTAACCCTGTATTTCTGGG ATGAAAGATGAGCTATATTTCAGAACAAAGTGCTGTGTTGTCATAATTTGCCTGGACTCCCAGGGCGTCTCTTAC CCAACTTGATAACGATGCTGTTCATTAGCAGCCTTTGTTAACTGATAACCAAGAGCGGTAATGTGATACTCATAA GCAATTTTCTGTGTGTAGGATAAAATAAACCATCTTGTATGGGAAAA

# 1982/2682 FIGURE 1795

 ${\tt MNLGVSMLRILFLLDVGGAQVLATGKTPGAEIDFKYALIGTAVGVAISAGFLALKICMIRRHLFDDDSSDLKSTPGGLSDTIPLKKRAPRRNHNFSKRDAQVIEL\\ \\ \dot{\tt COMMON COM$ 

#### 1983/2682 FIGURE 1796

# 1984/2682 FIGURE 1797

 ${\tt MGGNGSTCKPDTERQGTLSTAAPTTSPAPCLSNHHNKKHLILAFCAGVLLTLLIAFIFLIIKSYRKYRRERLPISPGPLLRWVPLLSGTMADHSKPQAPDPHSDPPAKLSSIPGESLTYASTTFKLSEEKSNHLAENHSADFDPIVYAQIKVTN}$ 

#### 1985/2682 FIGURE 1798

GGAGGGTTTTGCTCTTTGTGTGGGTGTGTGAGTGGCTATGATCCTAGTTGTCCAGCTGCTGCGTGGAGAATAAGT GGCGCTGTCCTGCAAGATGGCCGTGGAGTATGACCGCTTCATCGAGTCCGGCAGGAAGTGGTTCTGCCACGTGGA CGATGACAACTACGTCAACCTGCGGGCCCTGCTGCGGCCTGCTGCCACACCGCACACGCGGCACGTCTACGT CGGCAAGCCCAGCCTGGACAGGCCCATCCAGGCCATGGAGCGGGTCAGCGAGAACAAGGTGCGTCCTGTCCACTT GGGTCACTTCATGAATACGGCTGAGCGGATCCGGCTGCCTGATGACTGCACCATCGGCTACATCGTGGAGGCCCT GCTGGGTGTGCCCCTCATCCGCAGCGGCCTCTTCCACTCCCACCTGGAGAACCTGCAGCAGGTGCCCACCTCGGA GCTCCACGAGCAGGTGACGCTGAGCTACGGTATGTTTGAAAACAAGCGGAACGCCGTCCACGTGAAGGGGCCCTT CTCGGTGGAGGCCGACCCATCCAGGTTCCGCTCCATCCACTGCCACCTGTACCCGGACACCCCTGGTGTCCCCG .CACTGCCATCTTC**TAG**TGGCCATGGCTGAGACCCAATCCCTGGGCGCCCCTGGTATCCAAAGGGCCCAGGGACCC TGTTGCGCTGCCCTGGCCTCGGCATTCGAGGCTCCCCTAGGGCCGTGCCTGTGCGTGTGCGTGTGCATGTGCGTG TGTGTGTGTGTGTACTGCATGCCCACCCGGGTAGCAGGCTGCTGGGCAGTTCTGCTCTGTGGAGGGGCGGCCACC AGGCCACTCCGAGGGCAATTCTGTTAGGATTTTTGGATCTTTCTACAGCTACGGGGCTCCGGGCTACTTTGCAGG GATGCGATGCGTAGGTGCCTTTCTTCTTCCTGCTGACCACAAGCTCTGTGCTGGGGGGTACCTGTGCCCTGAAGTCC TGGCCCCTGTGTCATAGCCCCAAGTACGACTCACTGAGCCATGCTCATTGCAGGGGAGGCTGGGTCTGGGGGTGC GTGACCCAATCCCCTTCCTCCTGGCCTGGACGCTGTGGCTTAAGAGTAACAGCAGCCACCGCCCAGTTCCAGTGG CCCCACGAAGCCCCCAGTGGCTGGCTGTCCAGCTGGGCAAACAGTGGCACCCCTCCCAGCTCTTCTGAGTGGGGA GTCTTCCAGGCCTCCTCAGAGGTCTTCCCTTTGCCTCCCCAGGACAGGGTGAGTCAGAGCTCAGCATTTAATCTC TCTTATTTTATCTTATCTTTTCTGTGGATCAGAAAAAACAGAAGCCAAACTCGGGGTCATCTTTGTTTTTAAAGC TGAAGTGGGACTGTCTGGCACTCTGTGTATTTATGCGTTCCAGCATCTGGAACCTCCCATCCCTGCCCTCCTCCT TTTGCAAAGACATAGCTAGGAAAGCGAATGATAAGGGAAAAGTTCTCAGGGAATTGAAGTGTTGTTGCTATGGTG 

## 1986/2682 FIGURE 1**799**

MTPGRCCLAADIQVETFIFTDGEDEALARHTGNVVITNCSAAHSRQALSCKMAVEYDRFIESGRKWFCHVDDDNY VNLRALLRLLASYPHTRDVYVGKPSLDRPIQAMERVSENKVRPVHFWFATGGAGFCISRGLALKMSPWASGGHFM NTAERIRLPDDCTIGYIVEALLGVPLIRSGLFHSHLENLQQVPTSELHEQVTLSYGMFENKRNAVHVKGPFSVEA DPSRFRSIHCHLYPDTPWCPRTAIF

#### 1987/2682 FIGURE 1800

CTTCTCATTAGCATTAACTAGTTATGCCCAGCTTGGGAGAGCCTTCTTTGGGCTTATCATTTATTATAAGCCCAG TAGTCAAATTAATATTTTAACTAATACATCTTAGCAGAGTTTAGTTAAGCACAAAGTTAACAGTGGGTAGGATTG TACCACCAGCTAGTACTTACCTATTTAAAGATGTAGAATTTATTATCCTCTAATATTCTTATCAGTTGTTTCCAC AACTTTAGTTTACTATTGGACTTTCAAAAATTTAAAGAATTACAAGTAAAAATTCATTAAACACTTGTGTGAAT AGTAATACACAGTAATTAGTACAGCATGTTGCTTCTTCAACAAATTGAGTTTTCAGGGAAATCAGCAAGTAAATG AAATATAAATTTTTGGTAAAAGTATCAAACATTCATCTTGCCCATTTTTCCTCTTAAACTTTATTATCTAATCAA ACATAGTTTTCCATAAGATGTAATAAAATATAGATAAGGTTGGAATATTTGAGGATCCATTTGTGGAACTGAATT TAATGAGACTTCATTGGTGATACACTCAATTTTTACTGGGTAATTAGCTAATAATGTTGGTCACTGTCTCACAGT TCAAGTAGCTTTAAGATGATGTGGCAAGGAAAACACAAAGCTTTTGGGTAACCAGCGTTCTTAAATGTATGGTTT TTGACCAGGTGAACCCTTTAGAAGTGATTTCTGTTTTAAAAGTATGTACTTAAAATACCTTTGGCTGTGATGAAT GTAGATCCCAGCAGAATACCAAAATCCTATTTTTTTTGACTGAGTATTTGTAGATGCTTAATGACTGAAATGAAT TTGGAGGCACTGATGAAAGTGATTTTTTTAAAGTTCTCAGGTACTGTTCAATTATTTAATGTTAAGTTTAGTATC AAGATACAGTTGTTTTTAAAATGCCAAAATGCTGTTTATTATACAGAATATTTTATTACATTTGCAATATCTTTG TATATAGTGATTTTTTTTTTGATAATAAATGGAAAAATTCTAAAACAAA

#### 1988/2682 FIGURE 1801A

GTGCTGCCGTGACACTCGGCCCTCCAGTGTTGCGGAGAGGCAAGAGCAGCGACCGGCGCACCTGTCCGCCCGGAG CTGGGACGCGGGCGCCCGGACGAAGCGAGGAGGGACCGCCGAGGTGCGCGTCTGTGCGGCTCAGCCT GGCGGGGGACGCGGGGAGAATGTGGACTGGGTAGAGATGAACGAGACTTTTCTCAGATGTTGGATATTTGCTTGG AAAAACGTGTGGGTACGACCTTGGCTGCCCCCAAGTGTAACTCCAGCACTGTGAGGTTTCAGGGATTGGCAGAGG GGACCAAGGGGACCATGAAAATGGACATGGAGGATGCGGATATGACTCTGTGGACAGAGGCTGAGTTTGAAGAGA AGTGTACATACATTGTGAACGACCACCCCTGGGATTCTGGTGCTGATGGCGGTACTTCGGTTCAGGCGGAGGCAT CCTTACCAAGGAATCTGCTTTTCAAGTATGCCACCAACAGTGAAGAGGTTATTGGAGTGATGAGTAAAGAATACA TACCAAAGGGCACACGTTTTGGACCCCTAATAGGTGAAATCTACACCAATGACACAGTTCCTAAGAACGCCAACA GGAAATATTTTTGGAGGATCTATTCCAGAGGGGAGCTTCACCACTTCATTGACGGCTTTAATGAAGAGAAAAGCA ACTGGATGCGCTATGTGAATCCAGCACACTCTCCCCGGGAGCAAAACCTGGCTGCGTGTCAGAACGGGATGAACA TCTACTTCTACACCATTAAGCCCATCCCTGCCAACCAGGAACTTCTTGTGTGGGTATTGTCGGGACTTTGCAGAAA GGCTTCACTACCCTTATCCCGGAGAGCTGACAATGATGAATCTCACACAAACACAGAGCAGTCTAAAGCAACCGA ACTCCACCCTCCAAGGAAAGGACCTCTACCGTTCTAACATTTCACCCCTCACATCAGAAAAGGACCTCGATGAC TTTAGAAGACGTGGGAGCCCCGAAATGCCCTTCTACCCTCGGGTCGTTTACCCCATCCGGGCCCCTCTGCCAGAA GACTTTTTGAAAGCTTCCCTGGCCTACGGGATCGAGAGACCCACGTACATCACTCGCTCCCCCATTCCATCCTCC ACCACTCCAAGCCCCTCTGCAAGAAGCAGCCCCGACCAAAGCCTCAAGAGCTCCAGCCCTCACAGCAGCCCTGGG AATACGGTGTCCCCTGTGGGCCCCGGCTCTCAAGAGCACCGGGACTCCTACGCTTACTTGAACGCGTCCTACGGC ACGGAAGGTTTGGGCTCCTACCCTGGCTACGCACCCTGCCCCACCTCCCGCCAGCTTTCATCCCCTCGTACAAC GCTCACTACCCCAAGTTCCTCTTGCCCCCCTACGGCATGAATTGTAATGGCCTGAGCGCTGTGAGCAGCATGAAT GGCATCAACAACTTTGGCCTCTTCCCGAGGCTGTGCCCTGTCTACAGCAATCTCCTCGGTGGGGGCAGCCTGCCC CACCCCATGCTCAACCCCACTTCTCTCCCGAGCTCGCTGCCCTCAGATGGAGCCCGGAGGTTGCTCCAGCCGGAG CATCCCAGGGAGGTGCTTGTCCCGGCGCCCCACAGTGCCTTCTCCTTTACCGGGGCCGCCGCCAGCATGAAGGAC AAGGCCTGTAGCCCCACAAGCGGGTCTCCCACGGCGGGAACAGCCGCCACGGCAGAACATGTGGTGCAGCCCAAA GCTACCTCAGCAGCGATGGCAGCCCCCAGCAGCGACGAAGCCATGAATCTCATTAAAAAACAAAAGAAACATGACC GGCTACAAGACCCTTCCCTACCCGCTGAAGAAGCAGAACGGCAAGATCAAGTACGAATGCAACGTTTGCGCCAAG ACTTTCGGCCAGCTCTCCAATCTGAAGGTCCACCTGAGAGTGCACAGTGGAGAACGGCCTTTCAAATGTCAGACT TGCAACAAGGGCTTTACTCAGCTCGCCCACCTGCAGAAACACTACCTGGTACACACGGGAGAAAAGCCACATGAA TGCCAGGTCTGCCACAGAGATTTAGCAGCACCAGCAATCTCAAGACCCACCTGCGACTCCATTCTGGAGAGAAA CCATACCAATGCAAGGTGTGCCCTGCCAAGTTCACCCAGTTTGTGCACCTGAAACTGCACAAGCGTCTGCACACC GGGAACTGCGCTGCGCCCCGGCGCCTGGGCTGCCCTTGGAAGATCTGACCCGAATCAATGAAGAAATCGAGAAG TTTGACATCAGTGACAATGCTGACCGGCTCGAGGACGTGGAGGATGACATCAGTGTGATCTCTGTAGTGGAGAAG GAAATTCTGGCCGTGGTCAGAAAAGAGAAAGAAAGAAACTGGCCTGAAAGTGTCTTTGCAAAGAAACATGGGGAAT GGACTCCTCTCCTCAGGGTGCAGCCTTTATGAGTCATCAGATCTACCCCTCATGAAGTTGCCTCCCAGCAACCCA  ${\tt CTACCTCTGGTACCTGTAAAGGTCAAACAAGAAACAGTTGAACCAATGGATCCT} {\color{red}{TAA}} {\tt GATTTTCAGAAAACACTT}$ ATTTTGTTTCTTAAGTTATGACTTGGTGAGTCAGGGTGCCTGTAGGAAGTGGCTTGTACATAATCCCAGCTCTGC AAAGCTCTCTCGACAGCAAATGGTTTCCCCTCACCTCTGGAATTAAAGAAGGAACTCCAAAGTTACTGAAATCTC TATTTACACCTGTGTCTATATATTTGCCCCTGTGTATTTTGAATATTTGTGTGGACATGTTTGCATAGCCTTCCC ATTACTAAGACTATTACCTAGTCATAATTATTTTTTCAATGATAATCCTTCATAATTTATTATACAATTTATCAT TCAGAAAGCAATAATTAAAAAAGTTTACAATGACTGGAAAGATTCCTTGTAATTTGAGTATAAATGTATTTTTGT CTTGTGGCCATTCTTTGTAGATAATTTCTGCACATCTGTATAAGTACCTAAGATTTAGTTAAACAAATATATGAC TTCAGTCAACCTCTCTCTAATAATGGTTTGAAAATGAGGTTTGGGTAATTGCCAATGTTGGACAGTTGATGTG TTCATTCCTGGGATCCTATCATTTGAACAGCATTGTACATAACTTGGGGGTATGTGTGCAGGATTACCCAAGAAT AACTTAAGTAGAAGAAACAAGAAAGGGAATCTTGTATATTTTTGTTGATAGTTCATGTTTTTCCCCCAGCCACAA TTTTACCGGAAGGGTGACAGGAAGGCTTTACCAACCTGTCTCTCCCAAAAGAGCAGAATCCTCCCACCGCCC TGCCCTCCCCACCGAGTCCTGTGGCCATTCAGAGCGGCCACATGACTTTTGCATCCATTGTATTATCAGAAAATG

### 1989/2682 FIGURE 1801B

GTCAAAATTGCACAAACATGGTGCTCTACCAGGAAGGATTCGAGGTAGATAGGCTCAGGCCACACTTTAAAAACA AACACAAAAAAAAAAAAAAACGGGTATTCTAGTCATCTTGGGGTAAAAGCGGGTAATGAACATTCCTATCCCCAA CACATCAATTGTATTTTTCTGTAAAACTCAGATTTTCCTCAGTATTTGTGTTTTTACATTTTATGGTTAATTTA ATGGAAGATGAAAGGGCATTGCAAAGTTGTTCAACAACAGTTACCTCATTGAGTGTCCAGTAGTGCAGGAAAT GATGTCTTATCTAATGATTTGCTTCTCTAGAGGAGAAACCGAGTAAATGTGCTCCAGCAAGATAGACTTTGTGTT ATTCTATCTTTTATTCTGCTAAGCCCAAAGATTACATGTTGGTGTTCAAAGTGTAGCAAAAAATGATGTATATTT ATAAATCTATTTATACCACTATATCATATGTATATATATTTATAACCACTTAAATTGTGAGCCAAGCCATGTAAA ACTTGGTGACCTCACAATCACGTCGGTATGATTGGGCACCCTTGCCTACTGTAAGAGACCCTAAAACCTTGGTGC AGTGGTGGGGACCACAAAACAACCAGGGAGGAAGAGATACATCATTTTTTAGTATTAAGGACCATCTAAGACAGC TCTATTTTTTTTTTGCCACTTTATGATTATGTGGTCACACCCAAGTCACAGAAATAAAAAACTGACTTTACCGCT GCAATTTTTCTGTTTTCCTCCTTACTAAATACTGATACATTACTCCAATCTATTTTATAATTATATTTGACATTT TGTTCACATCAACTAATGTTCACCTGTAGAAGAGAACAAATTTCGAATAATCCAGGGAAACCCAAGAGCCTTACT GGTCTTCTGTAACTTCCAAGACTGACAGCTTTTTATGTATCAGTGTTTGATAAACACAGTCCTTAACTGAAGGTA AACCAAAGCATCACGTTGACATTAGACCAAATACTTTTGATTCCCAACTACTCGTTTGTTCTTTTTTCTCCTTTTTG ACATGTGAATGTTGAGCCCACAATCAACAGTGGTTTTATTTTTTCCTCTACTCAAAGTTAAAACTGACCAAAGTT ATTGTCAAAATGTAAATTAAATATAAATGTTCATGCTTTACC

#### 1990/2682 FIGURE 1802

AAVTLGPPVLRRGKSSDRGTCPPGAGTRAPGRPDEARRDRRGARLCGSAWRGTRGECGLGRDERDFSQMLDICLE KRVGTTLAAPKCNSSTVRFQGLAEGTKGTMKMDMEDADMTLWTEAEFEEKCTYIVNDHPWDSGADGGTSVQAEAS LPRNLLFKYATNSEEVIGVMSKEYIPKGTRFGPLIGEIYTNDTVPKNANRKYFWRIYSRGELHHFIDGFNEEKSN WMRYVNPAHSPREQNLAACQNGMNIYFYTIKPIPANQELLVWYCRDFAERLHYPYPGELTMMNLTQTQSSLKQPS TEKNELCPKNVPKREYSVKEILKNWTPPLQGKDLYRSNISPLTSEKDLDDFRRRGSPEMPFYPRVVYPIRAPLPE DFLKASLAYGIERPTYITRSPIPSSTTPSPSARSSPDQSLKSSSPHSSPGNTVSPVGPGSQEHRDSYAYLNASYG TEGLGSYPGYAPLPHLPPAFIPSYNAHYPKFLLPPYGMNCNGLSAVSSMNGINNFGLFPRLCPVYSNLLGGGSLP HPMLNPTSLPSSLPSDGARRLLQPEHPREVLVPAPHSAFSFTGAAASMKDKACSPTSGSPTAGTAATAEHVVQPK ATSAAMAAPSSDEAMNLIKNKRNMTGYKTLPYPLKKQNGKIKYECNVCAKTFGQLSNLKVHLRVHSGERPFKCQT CNKGFTQLAHLQKHYLVHTGEKPHECQVCHKRFSSTSNLKTHLRLHSGEKPYQCKVCPAKFTQFVHLKLHKRLHT RERPHKCSQCHKNYIHLCSLKVHLKGNCAAAPAPGLPLEDLTRINEEIEKFDISDNADRLEDVEDDISVISVVEK EILAVVRKEKEETGLKVSLQRNMGNGLLSSGCSLYESSDLPLMKLPPSNPLPLVPVKVKQETVEPMDP

#### 1991/2682 FIGURE 1803

AGGAGAAAGCGACGTGGCTCATTAGTGTTGCCTCTTCAGTGCTCAAGCCGCCTGGTGGATTCCTATGACACAGGG AATGAGGTCTGTTTCTTTGGGCCTGAGGCTGTGCATATAAAGTCTTATTTTGGGACTTTACAAACTTGTCCTAAC TATCTTGTGGATAGTGGGCTGTGACAATCTGGAATAGAGAACGTTCACACTTCGCTCCTTTAAAGAAGCGACCCC AGATCTGCAAGGGAGTAGATTCTGCTATCTTGGCCTCACAGCCCTTCCTGTTGATTACAAAGCCCGTGGAAGAAA ACAGAACACCCCCCCCAGTTCCGTCTAAATGTGTTTCTTCTGCTTCAATTACACCAGTTCTGGGGCAAAGACA CAAACACTTAAGATTCAGCATCTGTTCTCCAGTTGCACTGAGGAATGCACTGTCTCGCAGCACCAGCTCTGCAGA GCCCTTGCCCCAGACTCTTTGCGGTTTTATTTATATGTATTTCCATATTTCATTCCTGTGTGTCACTGCTGCATT GGTGTGGCAGCAAGTGACCAAATGCTACAGGTCTTACTATGGACACCAGGTCAGGTGCAACCACAAAACAAAG CCAGTTCCATGAGCTGCCTATGATATGCATTGCGGAAGTAACATTTTACCCAGGGTGTGCCATTGCAGTGATATA AATATATTTTTTTTTTTAGACTAAATATGAGCTGACTATCTCTTTTGATGTGTGTACATAGGTGTGAGTGTGTSTG TATGCGTGCCTGTCTGTGCGGGTGTGTGTATGTGCRTAGCCTCATGCTTAGGACTACCCATGAATGTTGTGGA ATGCTACACCTGGAGAGTTCTGGTTTTCCACCAGTTTCAAGATGAAGAACTACATGATACAGTGGACCTGGAGAC CATCCCCTTGGAAAGACAACCCAGAGATGTTCAGCATCCTGTATCTACACGCATCCTGTATCTACACGTGTATTT TGTAGCTGTCACACTAACCTTAATAAGAATTCTACAGCTTTGGACAGAGGCATTTTCACCTTAATGGYGAAGTAA TTTAAAATATAAATCCATTCAGGTGACAACCCATCATCAAAATTACAAATTTTCTGATTGAACTCATCTGAATCA TCAGTTCCTTGATGGAGAGAGAGAGGAGATGGAATGTGTCTGGTAACCCCAAATGGAGTACAAGTAGCCTTTGT TTTCCTGCATAAATGGACTTGTTGAATGCGAACGAATATATGCAATTCATATACTTTTGGAGATGAACGTAGATA TGTGTGTCAGCTTTGAGATGGTGTGYCCYGGATTAATACTTTGTCTCCCCAATATCACAGAAAAATACATGCCCA GTGACTCTTGAGGTTAAGGTAGTTGGGATGAAATGGCCTCAGGCAATTTCACATTCCCTAATTACCTGGAAAGTT CTACAGTAATTAATATGCAGCTAACTCCTGTTGCCCTCACAAGAGCATCAGCCTTCTAGAATCGGAGCTCCGGAG TGTGAAGATTCAGTATTGATATGATATGTATACCAAACTCCAGCCAACTTACTGCCATTTTTCATAATCTGAGTG GCTGCCTTGCTTATCCTAAGCTGTGGTTGCAGAAACCGTGGCCATTTATATAAGCTATAACATCAAATCAGGGAA CATTCTGACAGGGTGTGTGGCATTGTGTTCTATGCCAGAGTGACAAAGTTGATTCACCCCTTTTTTGGGGACCTTA ATATATTTTTTAAGGGATGTGCCTATGCATTGATGCCTGAAAAATATGTATAAAGAAATGAGGTTGACTCTTCTG AGCAGTTCATCTTTTCCAGAGGTAAGGGTAGGAGGCCAACTTCAGGATCTGGGTCTRAGCCCGTGGGSAAGCCCT GGCCGAGTGAGCTCCAATGCTAACTCATGTGCCGATCTCTAGAGCAGTGGGAAACTACCCCGCTGCACCAAATCA AGTAGCTTCACCTTGTGTATGCAGGCCCCAAGTTATTTTTTAGCAATCTTACGAGTGAAATGTTCTGGTGGGTTG AAAAACGTTCTTATTTTAAAGAAAGGTTGTGCTCGCTACACTGCTGGTGTGTGCRTTCTGAGACCTCTTGTATTC CAATCTGTGAAGGGATATGTGTATTAATCCGTACACCCGTATAGCCTCAATATTTGTCTGAAGACACTTAAATTC TGACCCATAAGGAAAGTTCCTAGAXGCCAATATTTTCACTTATTTAACATTCTCCAAACAACATCAAGCATTGAT ACACACTGAAGAGTGCGTTTATTTTTTGTATCACTCTAAGTATGTTGGAATATGCAAGGACTGTGGTTCAAATTA GAATGTATAAGGCATATTATAATTTAGTTCATACTGAAAAAGAAATTAACAGAACATTGTTCGGTTCACACGTTC CAAAATTTGAGTGATTTCTGGAGTTAGACATAGATTTTCTATTTTGTTTAATTTGTCAAGGTATTTTTCTTCCC AAAAAAAACTCGAG

#### 1992/2682 FIGURE 1804

CATATGTGTACCCGATTCAAAACTAGAGAATAGAATTTAAAACATAATTTTCAAAGTCTTCAAATATGCCTAAAG  $\tt GTAACAATGTCATCTTTTAATTGCCAATTTCTCTACCACTTTCAAAAAAATTACTTCCAAGGATTTA\underline{\textbf{ATG}} \textbf{AGCTCC}$ TTCCTTTCAACAGAAAATGGACTATTTTCCTTTCAGATTTACTATATGCTGTCACTCCAGCTTTATAACCGCATG TGCATACACAAACATTTCTTTCTCTCTTGCAGGTGGCACAAACCAGGAAGGGGAAATCTGTGGTTTAAATTCTTT  ${\tt ATGCCTCATCCTCTGAGTGCTGAAGGCTTGCTG} {\color{red}{\textbf{TAG}}} {\tt GCTGTATGCTGTTAATGCTAATCGTGATAGGGGTTTTTG}$ CCTCCAACTGACTCCTACATATTAGCATTAACAGTGTATGATGCCTGTTACTAGCATTCACATGGAACAAATTGC TGCCGTGGGAGGATGACAAAGAAGCATGAGTCACCCTGCTGGATAAACTTAGACTTCAGGCTTTATCATTTTTCA ATCTGTTAATCATAATCTGGTCACTGGGATGTTCAACCTTAAACTAAGTTTTGAAAGTAAGGTTATTTAAAAGAT ATATATTCATGTCATTCTTAATTGCAGGTTTTGGCTTGTTCATTATAATGTTCATAAACACCTTTGATTCAACTG TTAGAAATGTGGGCTAAACACAAATTTCTATAATATTTTTGTAGTTAAAAATTAGAAGGACTACTAACCTCCAGT TATATCATGGATTGTCTGGCAACGTTTTTTAAAAGATTTAGAAACTGGTACTTTCCCCCAGGTAACGATTTTCTG TTCAGGCAACTTCAGTTTAAAATTAATACTTTTATTTGACTCTTAAAGGGAAACTGAAAGGCTATGAAGCTGAAT TTTTTTAATGAAATATTTTTAACAGTTAGCAGGGTAAATAACATCTGACAGCTAATGAGATATTTTTTCCATACA AGATAAAAAGATTTAATCAAAAAATTTCATATTTGAAATGAAGTCCCAAATCTAGGTTCAAGTTCAATAGCTTAG CCACATAATACGGTTGTGCGAGCAGAGAATCTACCTTTCCACTTCTAAGCCTGTTTCTTCCTCCATATGGGGATA ATACTTTACAAGGTTGTTGTGAGGCTTAGATGAGATAGAGAATTATTCCATAAGATAATCAAGTGCTACATTAAT GTTATAGTTAGATTAATCCAAGAACTAGTCACCCTACTTTATTAGAGAAGAGAAAAGCTAATGATTTGCA GAATATTTAAGGTTTGGATTTCTATGCAGTTTTTCTAAATAACCATCACTTACAAATATGTAACCAAACGTAATT GTTAGTATATTTAATGTAAACTTGTTTTAACAACTCTTCTCAACATTTTGTCCAGGTTATTCACTGTAACCAAAT AAATCTCATGAGTCTTTAGTTGATTTAAAAAA

# 1993/2682 FIGURE 1805

 ${\tt MSSFLSTENGLFSFQIYYMLSLQLYNRMCIHKHFFLSCRWHKPGRGNLWFKFFMPHPLSAEGLL}$ 

# 1994/2682 FIGURE 1806

# 1995/2682 FIGURE 1807

GEMGMEKGYIKTNNGNNNDEDWSTPSXXXXXXXXXXXXXXMFIIVHYSYIVRRSYN

#### 1996/2682 FIGURE 1808

CTATTTTTTAAAACGGAGGTACTGAAAAAGATCGGGAGATTTTCTATTCCTCTATCAATGGGGATTTCCAGGCAC GTGCCCCACCCAAGGCCCACGCCCAGAGCGCCCGAGTGGCAGGACAACGCCCGCTGACATCTTCCCGTCCCGACG GCACAGGCTACTCCGAGCTCCGCCTTTTAGATTGCACCGAGAGAAGCCAGCTACAGCTTGGAGTCCAGGCCGGGT TTTCAAGCATCAAGACGGAAGTAACAGCGGAAAGGAAGTTCCAAGGCCCGCGCTGGGAAAAAGGTGGGGGAACCA GGGGAAGACTCGGAGTGCG<u>ATG</u>GCGGCGCAAATTCCAATTGTGGCCACCACTTCCACTCCCGGAATAGTCCGGAA CAGCAAGAAGAGGCCGGCCAGCCCTTCCCACAATGGCAGCAGCGGCGGGGGCTATGGCGCCAGTAAGAAAAAA TAGCACAGGACCTGTGGAAAAAGCTGCCAAACCTTTGCCATTTAAGGATCCCAACTTTGTGCACTCTGGCCACGG TGGCGCAGTAGCTGGCAAGAAGAACAGAACCTGGAAGAACCTGAAACAAATCCTCGCTTCTGAAAGGGCATTGCC GTGGCAACTGAACGATCCTAACTACTTCAGTATTGATGCTCCTCCATCCTTTAAGCCAGCTAAGAAGTATTCTGA TGTTTCAGGTCTGCCTTGCCAACTACACAGACCCCCAGAGCAAACTGCGGTTCAGCACCATTGAAGAGTTTTCCTA  $\tt CATTCGGAGGCTGCCCTCTGACGTCGTCACCGGCTACCTGGCCCTGAGGAAGGCCACGAGCATCGTTCCC\underline{\textbf{TGA}}_{GC}$ CCCAGAAAGGGAGATGAAATGGAAAGCTGTTTCAAAAACAGACTCTGGACTCATGATTTTGTTTCACGGAAACAA ACTCGTTCTGCTGTCAATCTGAAAATGCCAGTGCTGTGCCTTGGAAAGAATGTTTGGCTTTAATTTAAGGGTTTT TCAAGTAAAGGTGTTTGACAAGAAGATACAATAAAACCATACTTTTCATTTAAAAAA

# 1997/2682 FIGURE 1809

#### 1998/2682 FIGURE 1810

**ATG**GCTTTAGAGATCCACATGTCAGACCCCATGTGCCTCATCGAGAACTTTAATGAGCAGCTGAAGGTTAATCAG GAAGCTTTGGAGATCCTGTCTGCCATTACGCAACCTGTAGTTGTGGTAGCGATTGTGGGCCTCTATCGCACTGGC AAATCCTACCTGATGAACAAGCTGGCTGGGAAGAACAAGGGCTTCTCTGTTGCATCTACGGTGCAGTCTCACACC AAGGGAATTTGGATATGGTGTGCCTCATCCCAACTGGCCAAATCACACATTAGTTCTGCTTGACACCGAGGGC CTGGGAGATGTAGAGAGGCTGACAACAAGAATGATATCCAGATCTTTGCACTGGCACTCTTACTGAGCAGCACC TTTGTGTACAATACTGTGAACAAAATTGATCAGGGTGCTATCGACCTACTGCACAATGTGACAGAACTGACAGAT CTGCTCAAGGCAAGAAACTCACCCGACCTTGACAGGGTTGAAGATCCTGCTGACTCTGCGAGCTTCTTCCCAGAC TTAGTGTGGACTCTGAGAGATTTCTGCTTAGGCCTGGAAATAGATGGGCAACTTGTCACACCAGATGAATACCTG GAGAATTCCCTAAGGCCAAAGCAAGGTAGTGATCAAAGAGTTCAAAATTTCAATTTGCCTCGTCTGTGTATACAG AAGTTCTTTCCAAAAAAGAAATGCTTTATCTTTGACTTACCTGCTCACCAAAAAAAGCTTGCCCAACTTGAAACA CTGCCTGATGATGAGGCTAGAGCCTGAATTTGTGCAACAAGTGACAGAATTCTGTTCCTACATCTTTAGCCATTCT ATGACCAAGACTCTTCCAGGTGGCATCATGGTCAATGGATCTCGTCTAAAGAACCTGGTGCTGACCTATGTCAAT GTGCAAAAGGCCATTGCCCACTATGACCAGCAAATGGGCCAGAAAGTGCAGCTGCCCATGGAAACCCTCCAGGAG CTGCTGGACCTGCACAGGACCAGTGAGAGGGGAGGCCATTGAAGTCTTCATGAAAAACTCTTTCAAGGATGTAGAC CAAAGTTTCCAGAAAGAATTGGAGACTCTACTAGATGCAAAACAGAATGACATTTGTAAACGGAACCTGGAAGCA TCCTCGGATTATTGCTCGGCTTTACTTAAGGATATTTTTGGTCCTCTAGAAGAAGCAGTGAAGCAGGGAATTTAT TCTAAGCCAGGAGGCCATAATCTCTTCATTCAGAAAACAGAAGAACTGAAGGCAAAGTACTATCGGGAGCCTCGG **AAAGGAATACAGGCTGAAGAAGTTCTGCAGAAATATTTAAAGTCCAAGGAGTCTGTGAGTCATGCAATATTACAG** ACTGACCAGGCTCTCACAGAGACGGAAAAAAAGAAGAAGAGGCACAAGTGAAAGCAGAAGCTGAAAAGGCTGAA GCGCAAAGGTTGGCGGCGATTCAAAGGCAGAACGAGCAAATGATGCAGGAGAGGGGAGAGACTCCATCAGGAACAA GTGAGACAAATGGAGATAGCCAAACAAATTGGCTGGCAGAGCAACAGAAAATGCAGGAACAACAGATGCAGGAA CAGGCTGCACAGCTCAGCACAACATTCCAAGCTCAAAATAGAAGCCTTCTCAGTGAGCTCCAGCACGCCCAGAGG ACTGTTAATAACGATGATCCATGTGTTTTTACTCTAA

## 1999/2682 FIGURE 1811

MALEIHMSDPMCLIENFNEQLKVNQEALEILSAITQPVVVVAIVGLYRTGKSYLMNKLAGKNKGFSVASTVQSHT
KGIWIWCVPHPNWPNHTLVLLDTEGLGDVEKADNKNDIQIFALALLLSSTFVYNTVNKIDQGAIDLLHNVTELTD
LLKARNSPDLDRVEDPADSASFFPDLVWTLRDFCLGLEIDGQLVTPDEYLENSLRPKQGSDQRVQNFNLPRLCIQ
KFFPKKKCFIFDLPAHQKKLAQLETLPDDELEPEFVQQVTEFCSYIFSHSMTKTLPGGIMVNGSRLKNLVLTYVN
AISSGDLPCIENAVLALAQRENSAAVQKAIAHYDQQMGQKVQLPMETLQELLDLHRTSEREAIEVFMKNSFKDVD
QSFQKELETLLDAKQNDICKRNLEASSDYCSALLKDIFGPLEEAVKQGIYSKPGGHNLFIQKTEELKAKYYREPR
KGIQAEEVLQKYLKSKESVSHAILQTDQALTETEKKKKEAQVKAEAEKAEAQRLAAIQRQNEQMMQERERLHQEQ
VRQMEIAKQNWLAEQQKMQEQQMQEQAAQLSTTFQAQNRSLLSELQHAQRTVNNDDPCVLL

#### 2000/2682 FIGURE 1812A

 ${\tt ATTATGGGCTGTGGGTGCCGCTGAGCAAG} {\textbf{ATC}} {\tt GAGCTGTCTGCAGTGGGCGAGCGGGTCTTCGCGGCCGAATCCA}$ TCATCAAACGGCGGATCCGAAAGGGACGCATCGAGTACCTGGTGAAATGGAAGGGGTGGGCGATCAAGTACAGCA CTTGGGAGCCCGAGGAGAACATCCTGGACTCGCGGCTCATTGCAGCCTTCGAACAAAAGGAGAGGGAGCGTGAGC TGTATGGGCCCAAGAAGAGGGGACCCAAAACCCAAAACTTTCCTCCTGAAGGCGCGGGCCCAGGCCGAGGCCCTCC GCATCAGTGATGTGCATTTCTCTGTCAAGCCGAGCGCCAGTGCCTCCTCGCCCAAGCTGCACTCCAGCGCAGCCG GGGGCAGCCCGGACTGCGCCCCATTTCGCCCTTCTCGGAGACGGTGCGCATCATCAACCGCAAGGTGAAGC CGCGGGAGCCCAAGCGGAACCGCATCATCCTGAACCTGAAGGTGATCGACAAGGGCGCTGGCGGCGGGGGGCGCCG GGCAGGGGGCCGGGGCGCTGGCCCCCCAAAGTCCCCTCGCGGAACCGCGTTATAGGCAAGAGCAAGAAGTTCA CCCTGGTAGCCCCGTCCCCCGGCAAGGCTGAGGCCTCAGCCCCGGGCCCTGGGCTACTTCTGGCCGCCCCGCCG CCCCTACGACGCCCGCAGCTCTGGCTCCTCCGGCTGCCCTCGCCTACACCACAGTCCTCTGACCCCGACGACA CGCCCCCAAGCTCCTCCCCGAGACCGTGAGCCCATCCGCCCCCAGCTGGCGCGGAGCCGGAGGTGCTCGACCTGT CCCTCCCTCCCGAGTCGGCAGCCACCAGCAAGCGGGCACCGCCTGAGGTCACAGCTGCTGCCGGCCCGGCACCTC CCACGGCCCTGAGCCCGGTGCCTCCTCCGAGCCCGAGGCTGGGGACTGGCGCCCCGAGATGTCACCCTGCT CCAATGTGGTCGTCACCGATGTCACCAGCAACCTCCTGACGGTCACAATCAAGGAATTCTGCAACCCTGAGGATT CCACCAAGGAGGGGGGCTTGGGGGGGCCCTCCTGCCCGAAGTCATACTCTTGCTCCCACCCCACCCTTGCCCCCA GCCCTCTCTCCCTGTGCTTTGCTTGTCTCAAATGGCTCGGTGTTGACCCAGGGATGGGGCTGGGTAGTTGGGGTC CACTGGGTGGTTTCTGGAAAGCCCTAGAAACTAGGGTTCCTCTGCCCCTTCCACATCCCACCTGTCTCTAGCT TGCTTCCTGCTCTCCTGTGCGGCGTCTGATTTCTCGGTGCTAACCTGGCAGCTGTGGGGGCCCTTAGGAGCCCCCC TTTCCTAACCCCCTCAACGGTGGGAGGAACTGGCAGAGGGTGCGCCTGGCCACAGCCTCCCCGCATCTAAAGGCC CCTTCAGTTCTTGACCAAAGGTGCTACGAGAACCTGCCGTGGAAACTTCCAGTTGTGCGTCTGCCCCACTCGCTG TGTTTGTCCGTGGGTTCATACATGCATTGGGTGCTAGGCCCCAGGCTGCCGGGTGGCACCCTTTACAGTTCCTTT GAACAGGGGCATTGAAGGCCTGGACTGCCTCTCGCCTCAGTAGGCCTGGGGACCAGGCTTGGGTCTGGAGGTTTG CTGTGGAAGTCACCAGGCCTCCCCCCCCGGCCCAGGTGTGCTGGGGGGCACCGTGCCCCCACCCCCCTGCCCTCC TTCCAAGCTCCCTCTTCCTCCGGGTGTTTGGGGAGGATGCTGAAGAATCCATTCCCGAGGGCCTCCCGGCTTGTC TCCTGGGCAGCTTCTGTTTCCCTCTGCTGCCTGGGAGCTGAGGCCACCGTGCCAGTGGCAGAGGCCACAGCCCCA GCCTTAGGCCAGGCCCTGGGAGGCAGGCAGGCAAAGGGGAGACCAGAGGGTCTGTGTTCTCCAGGAGAATGAGG GTGTTGGTCCCAGAATTGGGACCGGGGCCCGCTGGCCAGCCCTGGGCCACTTCCCGGGTCTCCATTGTGCGTGG AGGGCCCACAGCGTGGCCCTAGCCCTCCCCTCCCCGGGATGTAGAACGGGGACCCTCGCAGGGTTGGGGCGGGGG CTGATACTCCTCGGCCCTCCCTACCCTGCCCTGTGTGTTGGCTTTGTGGCCGTCCAAGTGCCAATTGGCTTTTC CCACCTGGGTGCCAGTTACAGGTGTTTCCAGAGACCATAGAAATGTGTTTTCCTGAGAGTTCGTGTCATTCGTGA CTTTTTTGTAAAGAAGTTGTGTTTTCAGAGGTGATTTTATGACAGGAAAGTGAAAGAATTAGTTTTGCAAAAAAA AGAAAGAGCTATTTAAGAAAAAATAGTAACGCAGTGATTGCACAGGTGAGGTGGCAATGTCAGGATGGGGCGGAG GCCTGGGCCCAGCTGGCAGGTCCCCTGGCATCGCAGGCACTGTGGAGGGGCCTGGACCCAGATCTCCACACCCG TGCTTGCTCAAAGGGAAGGACAACAGCGGGCCCCCGGGAGCTAACCCAAGCTGCAGGTCCCGGCAAGCTGAGGTT TGGGAGGGTGGGGGTTGTCACTGGTGATTTTCTCCAGGGGGCTGGTGAGTGGGCAGTTTGGTTTCTTGCCCCCTT

#### 2001/2682 FIGURE 1812B

GTCACCCTAAAGCCCACAACCTCTCTGAGCCTCCCTGGCCTGAAAGGGGATGCAGGCTTCAGGAGGCAAGAAGCT GGGCCCCTGGGGGTGGCTGGGGAGAGGGAATGCATTTCCCTTGCCACAGGTGGTCTGCTTCTGCTGGCCTGAGCT CCAAGTGGAGCAGCCCGGGCCAGCCTTGGTGCATGAAGAGGCACCAGGCACACCGCCTTGAGGTGGGCAGTGCCC  ${\tt ACACTTGCACGGATCGGCCTCCTTGGGAGATCAGCCTCCATGGGCCCCTCGTCCACCCTTGCTGCTTTCCATTT}$ GCCTAATTACCAAGCAGAAGTTGCAATCTGGTTTGCTTTATTTTTTGTATGTGAAATAACCCCCAAAGCCCAATCT GGAAACCGGTGAGGTCTGGTGTCTCTGGTTTGAGACGGTAAGTTGGGACCCATCCCTGTCTGGGTGCCCACTCTG ACCTTTAGTTTGCCCTTCTGTGAAATGGGTGTATTGGGTAGCAAGCCCTCTTCAGAAAGCGCTGCTGGTGTCAGA GCAGCTGCCCAGTACCAGGTGGGGGGTCAAGGTTGCTGGTACTGGGGCCCCCAGCTGCCCACAACCCCTCTTTGT CCCCAACTTCAGTGTGAGGTGGACAGAGTTGGGGGGGATGGCCCCTTTTTGAAGAGGTGAAAATGGTTTTGGAGAAA GCGCAGCTGCTTCACTGGGGGAATGCGGCAGGGACTGGGGCCCAGGATGCTTTGGCCTATGGGGAAAAGCCCTTT AAAAGGCAGGGCCCAGGCCCTGGAGCCAGCACAAGACTGGCCTCGAGCCCTGAGCCAGGAGGTCCTGGAGGAGAGA GCCAGGCCGGTGGGCCCGCCCAAGGCTGGAGGGTCAGCCCCAACAGGGAGCTGGGTTGGCCAGGGGGGCTGGACTG  $\tt CTACCAGCCTCTCTGGCCTATGGGGACCCAAGAGGACACATCCCCCTTTTGCCCACTCTTCTGTTCATTTTGTT$ TTTTTTTTGCACTTCGCCCACACAGGACAGTGGAGCCCCACCTGGTCAGTTCCACTTCCGGGCTCCCATGCACTT GCCCAAGGCGGCCTCTTTGGGACGGGATGGTTTGAGGAAACACTTTTAAAGAAAAAAGGAAGACATTGAAAGGT TTTAGTTTCTTCCCTATCTGCATGTCCTCTCATATAGAAAGCCCAGAATTAGGGGCTAGAACTCCAGGAGAGGGT CTCCCCGACTCATCTCTTGCTGACGGTCACCAGGATGCAGAAATAGGGAGATGGTTAGTGGGGGCCCAAAGATGCC CCCTCCCAGGCCTTCGTGGTTCCCTCCTCCGCCCCCTGCAATCTTTGGAGGAGTCAGTGCCTCACTCCAGCAGTG AGTGCCTACTGTATGCAGGTAGTCAGCCAGGCAAAGAGAGTAACGGTCTCATGGGGGAACCCTCTTGCGGGAG GCCGGGTAGCTGGAGCGAAGCGTTCCGGCTGCCCTTGCTGCTGGGTGGAGTGGAGAGGGAGACTTCTTTTTGTTG GTTTTAATTTAAAAACACAAAGGCCTAAAGAAATACGTATCTTATAATTTTTTAATTTTTGAGACGTTCATTTA ATGAATTGTGCACGAATGAATTCTATATATATAAAATATACATATATAGCTCTATATTTGGGGAGGGGCACTGTC TCTTTTTTCTCTCATTTTTAAAATGAAGTGTTGTTGCCTTTGTATGTGGTTCAACCATCCAGCTCCCAGCTGGCT AAACTTTGCCTCCAGTGGTCAAAGATGGGAAAAGAGTGGGGTTGGCAGGAGATGGAAAACGGAGGTGCCGCCCCA GCATGGGGGGCAGGTCCCCCAGTCCACCCTGCCCCTCTCGCAGAAGACGCTTAGTTGGGGGTGTGGGTTT CATTCCGAAGCTGA

# 2002/2682 FIGURE 1813

MELSAVGERVFAAESIIKRRIRKGRIEYLVKWKGWAIKYSTWEPEENILDSRLIAAFEQKERERELYGPKKRGPK PKTFLLKARAQAEALRISDVHFSVKPSASASSPKLHSSAAVHRLKKDIRRCHRMSRRPLPRPDPQGGSPGLRPPI SPFSETVRIINRKVKPREPKRNRIILNLKVIDKGAGGGGAGQGAGALARPKVPSRNRVIGKSKKFSESVLRTQIR HMKFGAFALYKPPPAPLVAPSPGKAEASAPGPGLLLAAPAAPYDARSSGSSGCPSPTPQSSDPDDTPPKLLPETV SPSAPSWREPEVLDLSLPPESAATSKRAPPEVTAAAGPAPPTAPEPAGASSEPEAGDWRPEMSPCSNVVVTDVTS NLLTVTIKEFCNPEDFEKVAAGVAGAAGGGGSIGASK

#### 2003/2682 FIGURE 1814

ACGCGCGCCCTGCGGAGCCCGCCCAACTCCGGCGAGCCGGGCCTGCGCCTACTCCTCCTCCTCCTCCCGGCGG CCGGGAACGCACCGAGGAAGAAGCCCAGCCCCGCCCTCCGCCCTTCCGTCCCCACCCCTACCCGGCGGCCCA CTGCTCGCCGGGCCGCCGCCAGCTCCGTGCTCCCCGCGCCACCCTCCTCCGGGCCGCCCCCTAAGGGATG GCCTCGGGACGCGGGAAGCCGAGATCCCCCGCGAGGTGATCGAGAGGCTGGCCCGCAGTCAGATCCACAGCATCCGGGACCTCCAGCG ACTCCTGGAGATAGACTCCGTAGGGAGTGAGGATTCTTTGGACACCAGCCTGAGAGCTCACGGGGTCCACGCCAC TAAGCATGTGCCCGAGAAGCGGCCCCTGCCCATTCGGAGGAAGAAGCATCGAGGAAGCTGTCCCCGCTGTCTG CAAGACCAGGACGGTCATTTACGAGATTCCTCGGAGTCAGGTCGACCCCACGTCCGCCAACTTCCTGATCTGGCC CCCGTGCGTGGAGGTGAAACGCTGCACCGGCTGCTGCAACACGAGCAGTGTCAAGTGCCAGCCCTCCCGCGTCCA CCACCGCAGCGTCAAGGTGGCCAAGGTGGAATACGTCAGGAAGAAGCCCAAAATTAAAAGAAGTCCAGGTGAGGTT AGAGGAGCATTTGGAGTGCGCCTGCGCGACCACAAGCCTGAATCCGGATTATCGGGAAGAGGACACGGGAAGGCC TAGGGAGTCAGGTAAAAAACGGAAAAGAAAAAGGTTAAAACCCACC<u>TAA</u>GATGTGAGGTGAGGATGAGCCGCAGC CCTTTCCTGGGACATGGATGTACATGGCGTGTTACATTCCTGAACCTACTATGTACGGTGCTTTATTGCCAGTGT GCGGTCTTTGTTCTCCTCCGTGAAAAACTGTGTCCGAGAACACTCGGGAGAACAAAGAGACAGTGCACATTTGTT GAGAGAGAGAGAAAACAAAACCACAAATGACAAAAACAAAACGGACTCACAAAAATATCTAAACTCGATGAGA TGGAGGGTCGCCCCGTGGGATGGAAGTGCAGAGGTCTCAGCAGACTGGATTTCTGTCCGGGTGGTCACAGGTGCT TTTTTGCCGAGGATGCAGAGCCTGCTTTGGGAACGACTCCAGAGGGGTGCTGGTGGGCCTCTGCAGGGCCCGCAGG AAGCAGGAATGTCTTGGAAACCGCCACGCGAACTTTAGAAACCACACCTCCTCGCTGTAGTATTTAAGCCCATAC TTTTTTTTTTTTTTAATTATCTCTTGGATGACATTTACACCGATAACACACAGGCTGCTGTAACTGTCAGGACA ATCATTTCCTAAATGTTTCTGGCTTTGTGTTTCTCCCTTACCCTGCTTTATTTGTTAATTTAAGCCATTTTGAAA GAACTATGCGTCAACCAATCGTACGCCGTCCCTGCGGCACCTGCCCCAGAGCCCGTTTGTGGCTGAGTGACAACT TGTTGGTGTGCCCTGGTGCCGTGGTGGCGGTCACTCCCTCTGCTGCCAGTGTTTGGACAGAACCCAAATTCTTTA GTTTGTATGTTTACCTAATATTACCTGTTTTGTATACCTGAGAGCCTGCTATGTTCTTCTTTTGTTGATCCAAAA TTAAAAAAAAATACCACCAAC

# 2004/2682 FIGURE 1815

MRTLACLLLLGCGYLAHVLAEEAEIPREVIERLARSQIHSIRDLQRLLEIDSVGSEDSLDTSLRAHGVHATKHVP EKRPLPIRRKRSIEEAVPAVCKTRTVIYEIPRSQVDPTSANFLIWPPCVEVKRCTGCCNTSSVKCQPSRVHHRSV KVAKVEYVRKKPKLKEVQVRLEEHLECACATTSLNPDYREEDTGRPRESGKKRKRKRLKPT

#### 2005/2682 FIGURE 1816

# 2006/2682 FIGURE 1817

 $\label{thm:margtpsrflasvlhigl} $$ MTARGTPSRFLASVLHIGLGRYVQQLQRLSFSVSRDGASSRGAREFVEREVIDFARRNPGVVIYVNSRPCCVPRV$$ VAEYLINGAVREESIHCKSVEEISTLVQKLADQSGLDVIRIRKPFHTDNPSIQGQWTPSPTSRPRSAGYAPERFRI$$ LPQPRCKHSEELPHQLQPQALDCYSGKGGSSPLGFQAQANGTHQWAS$ 

#### 2007/2682 FIGURE 1818

ACGAGGCTGAGCGGGACCTGCGAGCAGCGCGGGCAGCCCGGGGGAAGCGTCCGGGACCACCACCAAACATTAACATCAAGGAACCTCGATGGGATCAAAGCACTTTCATTGGACGAGCCAATCATTTCTTCAC TGTAACTGACCCCAGGAACATTCTGTTAACCAACGAACAACTCGAGAGTGCGAGAAAAATAGTACATGATTACAG GCAAGGAATTGTTCCTCCTGGTCTTACAGAAAATGAATTGTGGAGAGCAAAGTACATCTATGATTCAGCTTTTCA TCCTGACACTGGTGAGAAGATGATTTTGATAGGAAGAATGTCAGCCCAGGTTCCCATGAACATGACCATCACAGG TTGTATGATGACGTTTTACAGGACTACGCCGGCTGTGCTGTTCTGGCAGTGGATTAACCAGTCCTTCAATGCCGT AACTGGTGCCGTAGCAACAGCTCTAGGACTCAATGCATTGACCAAGCATGTCTCACCACTGATAGGACGTTTTGT TCCCTTTGCTGCCGTAGCTGCTAATTGCATTAATATTCCATTAATGAGGCAAAGGGAACTCAAAGTTGGCAT TCCCGTCACGGATGAGAATGGGAACCGCTTGGGGGAGTCGGCGAACGCTGCGAAACAAGCCATCACGCAAGTTGT ACCCCTGTGTTGTGCCCTGTTTCCTCAGAAAAGTTCCATGTCTGTGACAAGCTTGGAGGCCGAGTTGCAAGCTAA GATCCAAGAGAGCCATCCTGAATTGCGACGCGTGTACTTCAATAAGGGATTG<u>TAA</u>AGCAGGGAGGAAACCTCTGC AGCTCATTCTGCCACTGCAAAGCTGGTGTAGCCATGCTGGTGAGAAAAATCCTGTTCAACCTGGGTTCTCCCAGT TACGGAAACCTTTTAAAGATCCACATTAGCCTTTTAGAATAAAGCTGCTACTTTAACAGAGCACCTGGCGTGGGC CAAGTGCCTGATACTCCCTTACACTGAATCATGTTATGATTTATAGAAATACCTTTCCTGTAGCTTTTATAGTCA TTGTTTTCAAAGACGATATACCAGCCCTCACCCAGGTTTTAAAAAAGCACTGGTAGGCATAGAATAGGTGCTCA AAGGGATGATGAACATGGAGCTGCATCTTTTTAAACGTTGTTTTTTGATGCTTCAGACTCTTAATGCTTTTATAT AGAAATACCTTTTCTGGAGAAAAAAATCCACATGAAGTGCAATAAGCTTATAAAGCTAAGTAGTTATTAATATT ΑΑΑΑΑΑΑΑΑΑΑΑΑΑΑΑ

# 2008/2682 FIGURE 1819

MSGELPPNINIKEPRWDQSTFIGRANHFFTVTDPRNILLTNEQLESARKIVHDYRQGIVPPGLTENELWRAKYIY DSAFHPDTGEKMILIGRMSAQVPMNMTITGCMMTFYRTTPAVLFWQWINQSFNAVVNYTNRSGDAPLTVNELGTA YVSATTGAVATALGLNALTKHVSPLIGRFVPFAAVAAANCINIPLMRQRELKVGIPVTDENGNRLGESANAAKQA ITQVVVSRILMAAPGMAIPPFIMNTLEKKAFLKRFPWMSAPIQVGLVGFCLVFATPLCCALFPQKSSMSVTSLEA ELQAKIQESHPELRRVYFNKGL

# 2009/2682 FIGURE 1820

CCTGTCTCAAAAAAAAAAAAAAAATTCACCCTTAAATCAACAAAAAGACCTCATGCTCATGCAGTGGACATTTCTT
GGCCTGTTTTCCTGTGGGTTTTCTTCAGCA<u>TGA</u>TATGAAGCAACTGTTGGCATAGCCAGTGGGATAAATAAGAAA
TGGAATCATTTGGCTGCCTCGTCACTTGTGCTAATGGTCAGTTGTACACACATGACATGTGGAAGTGACCTGTAG
CAGCGGTCACTCATTTTAACAATTGAACTCTGCTGGGTTGGGTATTTACCTTTGTCTAGAAAAGAAATATGATAT
ATTTTCTCTAAATAAATTTATTTTCATCATTCCAAAA

2010/2682 FIGURE 1821

PVSKKKKISPLNQQKDLMLMQWTFLGLFSCGFSSA

#### 2011/2682 FIGURE 1822

GTCACCCCAGCGGGCGGGCCGGAGCACGGGCACCCAGCATCGGGGTACTGCTCACACAGAGGACGCTGCTCA GTCTGGTCCTTGCACTCCTGTTTCCAAGCATGGCGAGCATGGCGGCTATAGGCAGCTGCTCGAAAGAGTACCGCG  ${\tt TGCTCCTTGGCCAGCTCCAGAAGCAGACCAGATCTCATGCAGGACACCAGCAGACTCCTGGACCCCTATATACGTA}$ TCCAAGGCCTGGATGTTCCTAAACTGAGAGAGCACTGCAGGGAGCCCCCGGGGCCTTCCCCAGTGAGGAGACCC TGAGGGGGCTGGGCAGGCGGGCTTCCTGCAGACCCTCAATGCCACACTGGGCTGCGTCCTGCACAGACTGGCCG AGATGGCGAGGCCGAACATCCTCGGGCTCAGGAACAACATCTACTGCATGGCCCAGCTGCTGGACAACTCAGACA GCAAGCTGGAGGGCTGCAGGTTCCTGCATGGCTACCATCGCTTCATGCACTCAGTGGGGCGGGTCTTCAGCAAGT  $\verb|CCTCCAGGAAAGGCAAGAGACTCATGACCAGGGGACAGCTGCCCGGTAGCCCCGGTGAGGCACCCCTTGCCGGTGA|\\$ AGGATGCGGCAGGTGCTCTGTGGATGAGAGGAACCATCGCAGGATGACAGCTCCCGGGTCCCCAAACCTGTTCCC CTCTGCTACTAGCCACTGAGAAGTGCACTTTAAGAGGTGGGAGCTGGGCAGACCCCTCTACCTCCTCCAGGCTGG GAGACAGAGTCAGGCTGTTGCGCTCCCACCTCAGCCCCAAGTTCCCCAGGCCCAGTGGGGTGGCCGGGCCGA CGCGGGACCGACTTTCCATTGATTCAGGGGTCTGATGACACAGGCTGACTCATGGCCGGGCTGACTGCCCCCCTG  $\verb|ccttgctcccgaggcctgccggtccttccttcatgacttgcagggccgttgccccagacttcctcctttcc|\\$ GTGTTTCTGAAGGGGAGGTCACAGCCTGAGCTGGCCTCCTATGCCTCATCATGTCCCAAACCAGACACCTGGATG TCTGGGTGACCTCACTTTAGGCAGCTGTAACAGCGGCAGGGTGTCCCAGGAGCCCTGATCCGGGGGTCCAGGGAA TGGAGCTCAGGTCCCAGGCCCGAAGTCGCCACGTGGCCTGGGGCAGGTCACTTTACCTCTGTGGACCTGT TTTCTCTTTGTGAAGCTAGGGAGTTAGAGGCTGTACAAGGCCCCCACTGCCTGTCGGTTGCTTGGATTCCCTGAC GTAAGGTGGATATTAAAAATCTGTAAATCAGGACAGGTGGTGCAAATGGCGCTGGGAGGTGTACACGGAGGTCTC GGATCCTGGAATTTTCTCACGCAGGAGCCATTGCTCTCCTAGAGGGGGGTCTCAGAAACTGCGAGGCCAGTTCCTT 

# 2012/2682 FIGURE 1823

 $\label{tortlist} MGVLLTQRTLLSLVLALLFPSMASMAAIGSCSKEYRVLLGQLQKQTDLMQDTSRLLDPYIRIQGLDVPKLREHCR\\ ERPGAFPSEETLRGLGRRGFLQTLNATLGCVLHRLADLEQRLPKAQDLERSGLNIEDLEKLQMARPNILGLRNNI\\ YCMAQLLDNSDTAEPTKAGRGASQPPTPTPASDAFQRKLEGCRFLHGYHRFMHSVGRVFSKWGESPNRSRRHSPH\\ QALRKGVRRTRPSRKGKRLMTRGQLPR$ 

#### 2013/2682 FIGURE 1824A

GCAGCGGCCAGGGGACCTCAGGGCTCCGGCTCTGCCGCCGGATTTGGGGGCCGCGAGGAAGAGCTGCGA GCCGAGGGCCTGGGGCCGCCCTCCCCGCCCTGTCTGCAGTTGGAAAACTTTTCCCCAAGTTTGGGGCGGC CCCCTCCCTGGGAGCTGCGTGGCTCCCCCTCCCCCCACCTGCTTCCTGCCTCAGCCTCCTGCCCCGA CTCCTCCGTATCACTTCCCCCAACTGGGGCAACTTCTCCCGAGGCGGGAGGCGCTGGTTCCTCGGCTCCCTTTCT CCCTACTTGGGTAAAGTTCTCCGCCCTGAATGACTTTTCCTGAAGCGGACATTTTACTTAAATCGGGTAACTGTC GGCTCCCACTCCAGAGGGCAGCTGGTCCTTCGCCGGTGCCCAGGCCGCAGGGCTGATGCCCCCGCTCAGCTGAGG TGTGTGTCCCCGCAGGAGAGTGTGCTGGGCAGACGATGCTGGACACGATGGAGGCGCCCGGCCACTCCAGGCAGC TGCTGCTGCAGCTCAACAACCAGCGCACCAAGGGCTTCTTGTGCGACGTGATCATCGTGGTGCAGAACGCCCTCT TCCGCGCGCACAAGAACGTGCTGGCGGCCAGCAGCGCCTACCTCAAGTCCCTGGTGGTGCATGACAACCTGCTCA ACCTGGACCATGACATGGTGAGCCCGGCCGTGTTCCGCCTGGTGCTGGACTTCATCTACACCGGCCGCCTGGCTG ACGGCGCAGAGGCGGCTGCGGCCGGGCCCGTGGCCCCGGGGGCTGAGCCGAGCCTGGGCGCCGTGCTGGCCGCCG CCAGCTACCTGCAGATCCCCGACCTCGTGGCGCTGTGCAAGAAACGCCTCAAGCGCCACGGCAAGTACTGCCACC TGCGGGGCGGCGGCGGCGCGGCGCCTACGCGCCCTATGCTATGCGAGCGGGCCGGGCCGGGAGCGCGCTC GCCGCCGCGCTACCCTGGCAGCCTGGACGGGCCCGGCGGCGGCGACGACGACTACAAGAGCAGCAGCGA GGAGACCGGTAGCAGCGAGGACCCCAGCACCGCCTGGCGGCCACCTCGAGGGCTACCCATGCCCGCACCTGGCCT ATGGCGAGCCCGAGAGCTTCGGTGACAACCTGTACGTGTGCATTCCGTGCGGCAAGGGCTTCCCCAGCTCTGAGC AGCTGAACGCGCACGTGGAGGCTCACGTGGAGGAGGAGGAGGCGCTGTACGGCAGGGCCGAGGCCGAAGTGG  $\tt CCGCTGGGGCCGGCCTAGGGCCCCCTTTTGGAGGCGGGGGACAAGGTCGCCGGGGCTCCGGGTGGCCTGG$ GAGAGCTGCTGCGGCCCTACCGCTGCGGCTCGTGCGACAAGAGCTACAAGGACCCGGCCACGCTGCGGCAGCACGC AGAAGACGCACTGGCTGACCCGGCCCTACCCATGCACCATCTGCGGGAAGAAGTTCACGCAGCGTGGGACCATGA CGCGCCACATGCGCAGCCACCTGGGCCTCAAGCCCTTCGCGTGCGACGCGTGCGGCATGCGGTTCACGCGCCAGT ACCGCCTCACCCGGACGCACATGCGCATCCACCCTCGCGGCGAGAAGCCCTACGAGTGCCAGGTGTGCGGCGGCA GCTGGCGGGCTTGGGGGGGCTCCCCGGCGTCCCCGGCCCCGACGCCAAGGCTCGACTTCCCCGAGGGCGT CTTTGCTGTGGCTCGCTCACGGCCGAGCAGCTGAGCCTGAAGCAGGAGAAGGCGGCCGCGACCGAGCTGCTG GCGCAGACCACGCACTTCCTGCACGACCCCAAGGTGGCGCTGGAGAGCCTCTACCCGCTGGCCAAGTTCACGGCC GAGCTGGGCCTCAGCCCGACAAGGCGGCCGAGGTGCTGAGCCAGGGCGCTCACCTGGCGGCCCGACGGCCCGACGGC GGACCATCGACCGTTTCTCTCCCACCTAGAGCGCCCCTCGCCAGCCCGCTCTGTCGCTGCTGCGCGGCCCTGGCC CGCACCCCAGGGAGCGGCGGGGGGGGGGGGCGCACTGTGCCCGGGACAACCGCAGCGTCGCCACAGTGGC GGCTCCACCTCTCGGCGGCCTCACCTGGCCTCACTGCTTCGTGCCTTAGCTCGGGGGGTCGGGGGAGAACCCCGGG ACGGGGTGGGATGGGGTAAGGGAAATTTATATTTTTGATATCAGCTTTGACCAAAGGAGACCCCAGGCCCCTCCC GGCACTCCTAGCCCTACCTCCGGCCCTTGCGACCACCCCATTCTCACTGTGAATCTCCCCGCTGGGTCGGAGCG AGGGCGGGGAGTTCTGGAGTCGGAAGGCGAAGAGCCTACCACCAGGTCTCCCACTCCCGCGGTGCCCTTCC CTTCCCTGCGGCCCCGGACCATATTTATTGCATGCGCCCCGGCCGCCCCCATCCCGAGCCCAGGCTGGGCTGGG CTGGAACGCGGTCTCTTTAGCTCCCTCTTCGTTTGTATATTTCCTACCTTGTACACAGCTCTTCCAGAGCCG CTTCCATTTTCTATACTCGAACCAAACAGCAATAAAGCAGTAACCAAGGACCCCGACCCCGCTGCTCTTCTGC

## 2014/2682 FIGURE 1824B

## 2015/2682 FIGURE 1825

MLDTMEAPGHSRQLLLQLNNQRTKGFLCDVIIVVQNALFRAHKNVLAASSAYLKSLVVHDNLLNLDHDMVSPAVF RLVLDFIYTGRLADGAEAAAAAAVAPGAEPSLGAVLAAASYLQIPDLVALCKKRLKRHGKYCHLRGGGGGGGGYA PYAMATSWAGSAAPPASAAKSVVGTRPSRPGGPRSAWRRRRATLAAWTGPARAATATTTRAAARRPVAARTPAPP GGHLEGYPCPHLAYGEPESFGDNLYVCIPCGKGFPSSEQLNAHVEAHVEEEEALYGRAEAAEVAAGAAGLGPPFG GGGDKVAGAPGGLGELLRPYRCGSCDKSYKDPATLRQHEKTHWLTRPYPCTICGKKFTQRGTMTRHMRSHLGLKP FACDACGMRFTRQYRLTRTHMRIHPRGEKPYECQVCGGKFAQQRNLISHMKMHAVGGAAARPGRWRAWGGSPASP APTARASSTSPRASLLWLAHGRAAEPEAAGQGGRDRAAGADHALPARPQGGAGEPLPAGQVHGRAGPQPRQGGRG AEPGRSPGGRARRTIDRFSPT

#### 2016/2682 FIGURE 1826

TGAGCAGTGGCCTGCTTAGGAAGAGAAGGTCAGAGTTCGCGGGGGCAGAGGCATTCTTGCCGCTGGCCCAGTCAC TATGTAGTGGAGGGCAGACACCCTCCCGCAAATTCTGGAAGGTTCTTAGTCTCGACTAGGGCAGTAGCCCCAGG  ${\tt ACTCCTAGTCGCCGGCTTCAGGTCACTGCCGGCTGAACGGAGCTGCCGTCGCC} \underline{{\tt ATG}} {\tt ITTGGCTGCTTGGTGGCGG}$ GGAGGCTGGTGCAAACAGCTGCACAGCAAGTGGCAGAGGATAAATTTGTTTTTGACTTACCTGATTATGAAAGTA  ${\tt TCAACCATGTTGTGGTTTTTATGCTGGGAACAATCCCATTTCCTGAGGGAATGGGAGGATCTGTCTACTTTTCTT}$ ATCCTGATTCAAATGGAATGCCAGTATGGCAACTCCTAGGATTTGTCACGAATGGGAAGCCAAGTGCCATCTTCA AAATTTCAGGTCTTAAATCTGGAGAAGGAAGCCAACATCCTTTTGGAGCCATGAATATTGTCCGAACTCCATCTG TTGCTCAGATTGGAATTTCAGTGGAATTATTAGACAGTATGGCTCAGCAGACTCCTGTAGGTAATGCTGCTGTAT  ${\tt CCTCAGTTGACTCATTCACTCAGTTCACAAAAAGATGTTGGACAATTTCTACAATTTTGCTTCATCATTTGCTG}$ TCTCTCAGGCCCAGATGACACCAAGCCCATCTGAAATGTTCATTCCGGCAAATGTGGTTCTGAAATGGTATGAAA  ${\tt ACTTTCAAAGACGACTAGCACAGAACCCTCTCTTTTGGAAAACA}{\tt TAA}{\tt TTTGAATAAAATAATTTTTAATGGATTC}$ TGAAATTTGTCATGTTTTGAAGATAACTGACTCCATCTAAAAGTATGAGGTCAAAGGATCACGAAACCTAAGTTT AAAAACTGCTTAGAGACTGAAGCTTAATTAAAAATCTTTATTAAAAATTAAAAACATTGAAAAAATGAAAATGTAAAAATGT TCATCATTAAAGACTTTTTCCCCTTAAGCTTAAAATACCATTCAAAGGCAAGACATTTTGTTTTGGCTATGATT ΑΑΑΑΑΑΑΑΑΑΑΑΑΑΑΑΑΑΑΑΑΑΑΑΑ

# 2017/2682 FIGURE 1827

 $\label{thm:mfgclvagrlvqtaaqqvaedkfvfdlpdyesinhvvvfmlgtipfpegmggsvyfsypdsngmpvwqllgfvtn} $$ GKPSAIFKISGLKSGEGSQHPFGAMNIVRTPSVAQIGISVELLDSMAQQTPVGNAAVSSVDSFTQFTQKMLDNFYNFASSFAVSQAQMTPSPSEMFIPANVVLKWYENFQRRLAQNPLFWKT$ 

#### 2018/2682 FIGURE 1828

CGCTGTTGCCTCCGCCACCTCCTCCGCCGCCGCGCCCCCTCGGAGTTCCGCGCCCCACCATGCCAACATCGTG GTCACGAAGAAGTTCAGCAACCAGGAGACCAGCGTGGAGATTGGTGAAAGCGTGAGAGGGGAAGATGTCTACATC ATCCAGAGCGGCTGCGGGGAAATTAACGACAACCTGATGGAACTCCTCATCATGATCAATGCCTGCAAGATTGCG TCATCATCCAGAGTAACTGCCGTGATCCCGTGTTTCCCATACGCCCGACAAGATAAAAAGGACAAGAGTCGTGCC CCAATTTCTGCAAAACTTGTGGCCAATATGCTGTCGGTGGCTGGGGCGGATCACATCATCACCATGGACCTGCAT GCTTCTCAGATACAGGGATTCTTTGATATTCCTGTGGATAATTTGTATGCGGAGCCCGCAGTCCTGCAGTGGATT CGGGAAAACATTGCCGAGTGGAAGAACTGTATCATTGTTTCACCTGACGCAGGGGGAGCCAAAAGGGTTACATCA GTCCTGGTGGGCGACGTGAAGGACCGTGTGGCCATCCTCGTGGATGACATGGCTGACACTTGCGGCACCATCTGC CATGCTGCGGACAAGCTGCTGTCAGCTGGAGCCACCAAAGTGTATGCTATCCTTACCCATGGGATCTTCTCTGGA CCAGCTATTTCCAGAATAAATAATGCCGCCTTTGAGGCTGTTGTCGTCACAAACACAATTCCGCAAGAGGACAAA ATGAAACACTGCACCAAGATTCAGGTCATTGACATTTCCATGATCTTGGCCGAAGCAATCCGAAGGACACACAAT  $\tt GGGGAATCCGTGTCCTGTTCAGCCATGTCCCGCTA{\color{red}{TAA}} ATCCAGAATGGGAAGTGTCCAGCAAGCCTACTC$ TGACTTCTGACTTGTTTTTGTTTTCTGGATTTTTAGCTGTAGGTATTCAGCAATGATAAGGTTAATCACTGGCAAA GGGGAAATGGTGGTGGTTATTTGGTCTTTAAGTGAACTGTCTTAAATGAGAAACGTTTTTGTCATTTTGACTTTT AACAGGTACAGGTGATCTCTTCCTTTGTTCTTTCAGTACTTTGAGGCGACAACTTTCAAGTATAAATTTCATTG GTATACATTAGACATATCAGAGCAGTGTATTTCTGGATCATTTTTTAAATGACCTCTTCTAAAACATAACTGTCA CTTACCTGAAATGCTGCATCCTAAAATTCCAAAATTATATTGAGCAATCGCCAAGGCCTAAAGCCAACTGACTTA ATTTTTAAAAAGGATATAGGAACCTGCATTGTCATTCTCTGAATTAAGAACTGATGGTTTCTATCATTATTTAGC AATTCAGACCTTGACTATTTGGTGTTTCCAGTTCACAAAGGTGATGAAGACTGTCTTGGGAGCAGCTTAATCCCA AAATTTGTACATTTCTTGCTGCTCCTGGCGTGGAAACTTAAGTGAGACCACCAAATACATTGGTCCTGTCCAATT CTACTGAATGGGGGTGGACCTGGCATTTATCTGGCCAAAAACAGGAGCCAGAGAAATATGAATATACCAAAGTTG TTTGTTTAGCCTCCAACTTAAATTACATTAGTCAACTTATAGATACTCATATGATCACTTTTCTTTTTAGATACT ACATCAACTAGATTCAGGAGTATATCATTTGCAGTGCTTGTATTGGTTTAAAATGTAAGATTTTAAGATCCTCTA 

## 2019/2682 FIGURE 1829

MPNIVLFSGSSHQDLSQRVADRLGLELGKVVTKKFSNQETSVEIGESVRGEDVYIIQSGCGEINDNLMELLIMIN ACKIASSSRVTAVIPCFPYARQDKKDKSRAPISAKLVANMLSVAGADHIITMDLHASQIQGFFDIPVDNLYAEPA VLQWIRENIAEWKNCIIVSPDAGGAKRVTSIADRLNVEFALIHKERKKANEVDRMVLVGDVKDRVAILVDDMADT CGTICHAADKLLSAGATKVYAILTHGIFSGPAISRINNAAFEAVVVTNTIPQEDKMKHCTKIQVIDISMILAEAI RRTHNGESVSYLFSHVPL

#### 2020/2682 FIGURE 1830

GGCAAGCTCCGCGGTGCGCCTACCAGCCGGGTGCCGGCCTGCGCGCCGACGCCGTGGTGTGCCTGGCGGTGTGC  ${\tt GCCTTCATCGTGCTAGAGAATCTAGCCGTGTTGTTGGTGCTCGGACGCCACCCGCGCTTCCACGCTCCCATGTTC}$  $\tt CTGCTCCTGGGCAGCCTCACGTTGTCGGATCTGCTGGCAGGCGCCGCCTACGCCGCCAACATCCTACTGTCGGGG$ GTGCTGAGCCTCCTGGCCATCGCGCTGGAGCGCAGCCTCACCATGGCGCGCAGGGGGCCCCGCCCCGTCTCCAGT CGGGGGCGCACGCTGGCGATGGCAGCCGCGGCCTGGGGCGTGTCGCTGCTCCTCGGGCTCCTGCCAGCGCTGGGC TGGAATTGCCTGGGTCGCCTGGACGCTTGCTCCACTGTCTTGCCGCTCTACGCCAAGGCCTACGTGCTCTTCTGC GTGCTCGCCTTCGTGGGCATCCTGGCCGCGATCTGTGCACTCTACGCGCGCATCTACTGCCAGGTACGCCCAAC GCCTTGCTGCGCACGCTCAGCGTGGTGCTCCTGGCCTTTGTGGCATGTTGGGGCCCCCTCTTCCTGCTGCTGTTG CTCGACGTGGCGTGCCCGGCGCGCACCTGTCCTGTACTCCTGCAGGCCGATCCCTTCCTGGGACTGGCCATGGCC AACTCACTTCTGAACCCCATCATCTACACGCTCACCAACCGCGACCTGCGCCACGCGCTCCTGCGCCTGGTCTGC TGCGGACGCCACTCCTGCGGCAGAGACCCGAGTGGCTCCCAGCAGTCGGCGAGCGCGGCTGAGGCTTCCGGGGGC CTGCGCCGCTGCCTGCCCCGGGCCTTGATGGGAGCTTCAGCGGCTCGGAGCGCTCATCGCCCCAGCGCGACGGG CTGGACACCAGCGGCTCCACAGGCAGCCCCGGTGCACCCACAGCCCCCGGACTCTGGTATCAGAACCGGCTGCA GACTGACACCCTCGGCCCACGACTGTCTTCCCAAGTTTTACAGACTTGTTCTTTTTACATAAAGGAATTTGTAGG AAATGCAGCCAAAGGTGCAGTCGGAAAAGATGCAGGGGAAATGTATTTATGCAGCGACACCCCACAATGTGAACA AACAGACAAAAAATCTGTGCCCTCGTGGAATTGACGTTCTGCTTGGGAACACAGAAAAGAACTCGGTGATGAAAT AATGGAGATGATTCCAGTGACAAACGACAGAGATGGTGGTGGTCAGGGAAGACCTCTCTGCAGAGGTAGTGA CTTGTGATGTGAGCTGAGACCTCTGTCCTGGGAAGACCAAAAGAAAAGCATTTCAGGATGAGGGAATGGCATGCG CAAAGGCCCTGAGGCTGAAATGTGCCCATGTGTTCTAAGAAATGCAGCGATGCTGGTGTGCCTGGAGCAGGGACG GAGGGGGAGAATGGGAGGAGAAAGGAGCTGAAGGAGTAGTTCCCGAAGGACCTTGTGGGTGATATAGAGGACTT CGCTTTTGCTCTGAGTGAGGTGGGAGCCATAGAAGCTTCTAAGCAGAAGAGGGACTTGCCCTAATTCAGGTGATC ACAGGTGTCTTGTGGCCTCCATGGGAGGTTGAAAACCACAGAAGGTGAAGGGGGGCTGCACTGAGCCACAGGAAC AGGAATTGAGTGTAAGAGTGGAATAAAGTTATCAAGGACAATGCCAAGGGTGGGGCACCCCCAAATTTGACTTTG TTTTTTTTTTTTGAGTTGGGATCTTGTGCTCTGTCACCCAGGCTGGAGTGCAATGGGCACAATTATAGCTCACT GCAGCCTGGAACTCCTGGGATCAAGCCTGGAGTTCCTGCTTCAGCCTCCCTAGTAGCTGGGACTACAGGCATGCA 

## 2021/2682 FIGURE 1831

MESGLLRPAPVSEVIVLHYNYTGKLRGARYQPGAGLRADAVVCLAVCAFIVLENLAVLLVLGRHPRFHAPMFLLL GSLTLSDLLAGAAYAANILLSGPLTLKLSPALWFAREGGVFVALTASVLSLLAIALERSLTMARRGPAPVSSRGR TLAMAAAAWGVSLLLGLLPALGWNCLGRLDACSTVLPLYAKAYVLFCVLAFVGILAAICALYARIYCQVRANARR LPARPGTAGTTSTRARRKPRSLALLRTLSVVLLAFVACWGPLFLLLLLDVACPARTCPVLLQADPFLGLAMANSL LNPIIYTLTNRDLRHALLRLVCCGRHSCGRDPSGSQQSASAAEASGGLRRCLPPGLDGSFSGSERSSPQRDGLDT SGSTGSPGAPTAARTLVSEPAAD

## 2022/2682 FIGURE 1832

AAAGTGTAGTGAACTTGGCTTCTCGCAGACTCGTAGAAAGTTAAAAAGGAAGCTACCATCTAAATGGTTTTATTA  ${\tt TTATTCCAGATATTTTGGTATTGTTTTCTGTATCATGATAGTC} {\tt TAA} {\tt AAAACTAGTTTTACTTTTAATATTAATTG}$ GTATAATAATTAGTTGTTTTTTTTCCCCAGTCACTGAAGATGTGTGCTTAGTTACATAAAGTACATTAATATTTG TGTTTATAAAATAATACAATATTTATAGTATAATGTTTATATGTGTTTAAATTGTGACAGCACTGCATCCACT TGAGGCTCTTTTTTATAGCTACTAGGAGGTTTAGGCACTTGGAGTTAAATTTTAAATGAACCACATATTTTCATT TTGTTAATGTAGTTTCCCATTTTATGCAAATAAAATATTTAATGGGCTCTCCACTCCTGTGCTCTTGTCCCCTTA CCGCTACCACCCTAAGAGATTATCATTGTTAACATTTGAGGACATGGTGTTTTTGTAACCTGTTGTTTTTTCTTAA TATGACAATGGCCCATATTTTAGCAGTAAACAAAAAGATACAGAAGATGAAAGCTTAGCCAAACACTGTAAATAG AAATGGGAAGCTTTTTCATATCGGGGAACGGTGGCTTAATTGATTCTTGGGGAATGGGGGATCAACTAACCATAA ACAATTTCATTTAGGATTTTTGCATCATGAGGGTATTTGGAGAGAAATATATCATCCTATAATGTGCACAGTAAG AGAGTGAAAGATATGGGTACAAGTATATAGAGACCTATCAAAAATACATTGCTTGTGGTATTAATTCTCATGTGT GATTTTAGCATATTAAAAGGCTGTTTTGTGTTTTTAGAACCATAAGAATAAATGGGGATGTTACCTTTCAGTTTG TTCCAAAGATTGCATGCATCATTACCAAAGCTTGAGTCTTTTTACTCCCCTGTCTTGTTGAGATACCTACTT GAGCATACTCTGGAATGAGAAAGTTTATCGATTAACATGCTGCTTACGCAGATAGGATTAGCATTTCCTTAATTT AGTATACCACGTGTTGTATCAGGCATAAAAGCCAGCTTTTTTTAGTCATACCCCAATGTTTAAAATTGTTAAATG CAGACTTCATGTTCTTTTGATCATTTAAATCATGACATGGATATTTTTAATTTTTATATTCTAGTAATTATCAAT TGTCCTGGTCTGGCTGCTTAGAGTATCAGTTTGCTCAAAATTGCTTGAATCATTAAAGCAAATACTAATTGTGAG CATTGACCAGATCTTAAGTTAAAAAAAAAAAAAGTCGACGC

## 2023/2682 FIGURE 1833

KCSELGFSQTRRKLKRKLPSKWFYYYSRYFGIVFCIMIV

## 2024/2682 FIGURE 1834

#### 2025/2682 FIGURE 1835

GACAGTGGAGGGCAGTGGAGAGGACCGCCCTGTCCTGCTGTCACCAAGAGCTGGAGACACCATCTCCCACCGAGA GTCATGCCCCATTGCCCTGCACCTCCTCGTCCCCATCCTCCTCAGCCTGGTGGCCTCCCAGGACTGG GCCAAGGTGCTCAGCGATGCTGGACACAAGGTCACCATCCTGGAGGCAGATAACAGGATCGGGGGCCGCATCTTC ACCTACCGGGACCAGAACACGGGCTGGATTGGGGAGCTGGGAGCCATGCCCAGCTCTCACAGGATCCTC CACAAGCTCTGCCAGGGCCTGAGCCTGACCTGACCAAGTTCACCCAGTACGACAAGAACACGTGGACGGAGGTG CACGAAGTGAAGCTGCGCAACTATGTGGTGGAGAAGGTGCCCGAGAAGCTGGGCTACGCCTTGCGTCCCCAGGAA AAGGGCCACTCGCCCGAAGACATCTACCAGATGGCTCTCAACCAGGCCCTCAAAGACCTCAAGGCACTGGGCTGC GCCGTGCAGCTTCTGGGAGACGTGATGTCCGAGGATGGCTTCTTCTATCTCAGCTTCGCCGAGGCCCTCCGGGCC AGCTCGCTGTCCGGGCTTGTGCTGTTGAACGCGCCCGTGGTGGCGATGACCCAGGGACCGCACGATGTGCACGTG CAGATCGAGACCTCTCCCCCGGCGCGGAATCTGAAGGTGCTGAAGGCCGACGTGGTGCTGCTGACGGCGAGCGGA CCGGCGGTGAAGCGCATCACCTTCTCGCCGCCGCTGCCCCCCACATGCAGGAGGCGCTGCGGAGGCTGCACTAC GTGCCGGCCACCAAGGTGTTCCTAAGCTTCCGCAGGCCCTTCTGGCGCGAGGAGCACATTGAAGGCGGCCACTCA TGGTCGGACGCGGCAGCGTTCGCCGGCTTGAGCCGGGAAGAGGCGTTGCGCTTGGCGCTCGACGACGTGGCG GCATTGCACGGGCCTGTCGTGCGCCAGCTCTGGGACGGCACCGGCGTCGTCAAGCGTTGGGCGGAGGACCAGCAC AGCCAGGGTGGCTTTGTGGTACAGCCGCCGGCGCTCTGGCAAACCGAAAAGGATGACTGGACGGTCCCTTATGGC CGCATCTACTTTGCCGGCGAGCACACCGCCTACCCGCACGGCTGGGTGGAGACGGCGGTCAAGTCGGCGCTGCGC GCCGCCATCAAGATCAACAGCCGGAAGGGGCCTGCATCGGACACGGCCAGCCCCGAGGGGCACGCATCTGACATG GAGGGCAGGGGCATGTGCATGGGGTGGCCAGCAGCCCCTCGCATGACCTGGCAAAGGAAGAAGGCAGCCACCCT CCAGTCCAAGGCCAGTTATCTCTCCAAAACACGACCCACACGAGGACCTCGCATTAAAGTATTTTCGGAAAAA

## 2026/2682 FIGURE 1836

MAPLALHLLVLVPILLSLVASQDWKAERSQDPFEKCMQDPDYEQLLKVVTWGLNRTLKPQRVIVVGAGVAGLVAA KVLSDAGHKVTILEADNRIGGRIFTYRDQNTGWIGELGAMRMPSSHRILHKLCQGLGLNLTKFTQYDKNTWTEVH EVKLRNYVVEKVPEKLGYALRPQEKGHSPEDIYQMALNQALKDLKALGCRKAMKKFERHTLLEYLLGEGNLSRPA VQLLGDVMSEDGFFYLSFAEALRAHSCLSDRLQYSRIVGGWDLLPRALLSSLSGLVLLNAPVVAMTQGPHDVHVQ IETSPPARNLKVLKADVVLLTASGPAVKRITFSPPLPRHMQEALRRLHYVPATKVFLSFRRPFWREEHIEGGHSN TDRPSRMIFYPPPREGALLLASYTWSDAAAAFAGLSREEALRLALDDVAALHGPVVRQLWDGTGVVKRWAEDQHS QGGFVVQPPALWQTEKDDWTVPYGRIYFAGEHTAYPHGWVETAVKSALRAAIKINSRKGPASDTASPEGHASDME GQGHVHGVASSPSHDLAKEEGSHPPVQGQLSLQNTTHTRTSH

## 2027/2682 FIGURE 1837

ATACACATGCAGAAGCTGTGACACGTGCGGAAGCTGTGGTAAGTGCATCCTCCTTCAGTCTCAGTTCTGAAAATA GATCATCATGGTGGCACCAAAGAGTCACAGATGACTGGGCTCCTGGGCCTTTCTCCAGTAAGCCACAGAGGAG TCAGCTGCAAATATTCTCTTCTGTTCTACAGACCTCTCTCCTCTTCCTGCTCATGGGCCCAACTCCTGGGAAACA TCTCTCCGCTGCATGGCCCGGAACCCCACTGTCCAGCAGATAGAGCCCAATCCAGTACCCCAGAGAGGATCTCAGC CACCTGGGACTGTGGCAGCTACTGTCCTTCTGTGCTCCCGCTTTCTCCAGGGCTTCAGGGATGATGCAGGAC TAAGAGCCTCTGGAAAGGACTCAGCCCCAACAGTGGTGTCAGGGATCCTAGGGGGTTCCGTGACTCTCCCCCTAA ACATCTCAGTAGACACAGAGATTGAGAACGTCATCTGGATTGGTCCCAAAAATGCTCTTGCTTTCGCACGTCCCA AAGAAAATGTAACCATTATGGTCAAAAGCTACCTGGGCCGACTAGACATCACCAAGTGGAGTTACTCCCTGTGCA TCAGCAATCTGACTCTGAATGATGCAGGATCCTACAAAGCCCAGATAAACCAAAGGAATTTTGAAGTCACCACTG GCACACTCCTGGAGGGCAGCGGCCTGGAGTCCATCATCAGCACCCTGGCTGAGCCACGTGTGAGCGTGCGGGAGG AGGGTCCTGCCGATGGGACCCTGCCAGGCCCAGTGCCACTGCCCCCGAGGGCTGCTAGACGTGGGGCCGTTAGGC GTGTCCCACCCGCCGCCGCCTCCCATGGGCACGTCGGGAACACCGGAGCCGCCAACTTGGAGACTTCCTGGTCT GTGAAGAGCCGCTGACGCCCGCAGGAAACCGGGGCTTGGGCCTTGTGTGCCAGTCGGGGTTTTGTGCTTGGTCGTT TCTCCGCTTGGATTTGCTTATTTATTGCATTGCTGGTAGAGACTCCCAAGCCTGTCCACCCTGCAAAGACTCCTC GGGCAGCATGCGGGTCCCGCACACTGCACCCATTTCCTGGATGTCCCCTGCAGGCGCGGGAGGCCATCCGGGCCT GCTGGCTGCGGCCCCCTCTCAGCCAGGCCTGGCTCAGCCCACTGCGTGGGAGGTCACCGGCCACTCCCCGAGGAG  $\tt CTGGGATCCCCGGGATGCAGGCCCACAGTGCGGGGCTGCACCCATGATGCGGAGCTGGCCTCCAACCCTGCGGGC$  $\tt CGCGCCAGGCACCCAACTCAGTGTTTGTCAGTGTTTTTTCCAAGAAATGGTTCAAATTGCTGCTCAGATTTTT$ AAATTTACTGTAGCTGCCAGTGTACACGTGTGGACCCCATTTTATTTTTACACCAATTTGGTGAAAATGCTGCTT TCCTCAGCCTCCCCACAATTAAACTGCACATGGTCTCTAA

## 2028/2682 FIGURE 1838

THAEAVTRAEAVVSASSFSLSSENRSSWWHQRVTQMTGLLGLSPVSHRGVSCKYSLLFYRPLSSSCSWAQLLGNI SPLHGPEPHCPADRANPVPQRGSQPPGTVAATVLLCSRFLQGFRDDDAGLRASGKDSAPTVVSGILGGSVTLPLN ISVDTEIENVIWIGPKNALAFARPKENVTIMVKSYLGRLDITKWSYSLCISNLTLNDAGSYKAQINQRNFEVTTE EEFTLFVYAPFIEKLSVHVIEGDHRTLLEGSGLESIISTLAEPRVSVREG

## 2029/2682 FIGURE 1839

TTTTTGAAGGCTTAAGCAATCGGGGACGAGCTTTATTGAGGCAATCACATCCACATTTCAGTTGTTTGCAATGAT
TGGCAAACGGATGAGTTAAAAAAGCCTTCTGCTTCCACACTGTTCCGTCTACATTCAGAAAGCAGTAAAAAATATA
TTCGTGCAATGAACACTTTCCACCTTAAGCGTATCATGACAGTTCACAAATTTGCCAACAGACAATGCAAAACAA
TATTTACAAGATAGACCCTTTGTAAGTTCCAAATTTAGATACTTGTGGTGTAATTCTAAAACTAACATCGCATGT
TTTTCCAGGT

#### 2030/2682 FIGURE 1840

GAGATGAAGGTGAAGATGCTGAGCCGGAATCCGGACAATTATGTCCGCGAAACCAAGTTGGACTTACAGAGAGTT CCAAGAAACTATGATCCTGCTTTACATCCTTTTGAGGTCCCACGAGAATATGTAAGAGCTTTAAATGCTACCAAA CTGGAACGAGTATTTGCAAAACCATTCCTTGCTTCGCTGGATGGTCACCGTGATGGAGTCAATTGCTTGGCAAAG CATCCAGAGAAGCTGGCTACTGTCCTTTCTGGGGCGTGTGATGGAGAGGTTAGAATTTGGAATCTAACTCAGCGG AATTGTATCCGTACAATACAAGCACATGAAGGCTTTGTACGAGGAATATGTACTCGCTTTTGTGGGACTTCTTTT  ${\tt TTACATACAATATTAGGAAAGACAGTGTATACTGGGATTGATCATCACTGGAAAGAAGCTGTTTTTGCCACATGT}$ GGACAGCAAGTAGACATTTGGGATGAACAAAGAACTAATCCTATATGTTCAATGACCTGGGGATTTGACAGTATA AGTAGTGTTAAATTTAACCCAATTGAGACATTTCTCTTGGGAAGTTGTGCATCTGACAGGAATATAGTACTGTAC GATATGAGGCAAGCTACTCCTTTGAAAAAGGTTATCTTAGATATGAGAACAAATACAATCTGTTGGAACCCTATG GAAGCTTTCATTTTTACAGCAGCAAATGAAGATTATAACTTATATACTTTTGATATGCGTGCACTGGACACTCCT GTAATGGTCCATATGGATCATGTATCTGCAGTGCTTGATGTGGATTACTCTCCCACTGGGAAGGAGTTTGTGTCT GCTAGTTTCGATAAATCTATTCGAATCTTTCCTGTAGACAAAAGTCGAAGCAGGGAGGTATATCATACAAAGAGA ATGCAACATGTTATCTGTGTAAAATGGACTTCTGACAGCAAGTATATTATGTGTGGATCTGATGAAATGAACATT CGCCTGTGGAAAGCTAATGCTTCTGAAAAATTGGGTGTGCTTACATCACGAGAAAAAGCAGCCAAGGATTATAAC CAGAAATTGAAGGAGAAATTTCAGCATTATCCTCATATAAAACGTATAGCTCGTCATCGACATCTACCAAAATCT ATCTATAGCCAGATTCAGGAACAGCGCATCATGAAAGAAGCTCGTCGACGAAAGGAAGTGAATCGTATTAAACAC  ${\tt AGCAAGCCTGGATCTGTGCCACTTGTGTCAGAGAAGAAGAAGAACACGTAGTGGCAGTTGTAAAA} {\color{red}{\textbf{TAA}}\textbf{TTGGTATTC}}$ CTAACAATCCTGATGTATAATTATTTGTTACTTTTGATTTGAGAACTCTACAAATAAAAGTGCTGGGACTAGATT AATTGCAAACATTTTAGTTATATGTGTAGAGCTTTATTGTTACTCCTTTTAGCTACCCTGAAAAATGATCCTTAA  ${\tt AGGTGGCCTAGTTGGTAAGACTGTTTTATCCTTAATCTGCATTCTTCTTTCATTGTAGAATACAGTATTTGCAAC}$ TCATTTTTTTTTTTTTTACAGATATACTTACTTTCTCTTTGATCTATTATTGTAGACACTATACATTCAAA TTGACATTTAAGACCAAACATCTCTTATGTTATCTTTAATATTACTTTGAATAATGATTGCAATGATGTTTCTTC CTGTGATTCCACATAACATTTAGAATAATGATGTCAATTTTTTACAACTG

## 2031/2682 FIGURE 1841

MKVKMLSRNPDNYVRETKLDLQRVPRNYDPALHPFEVPREYVRALNATKLERVFAKPFLASLDGHRDGVNCLAKH PEKLATVLSGACDGEVRIWNLTQRNCIRTIQAHEGFVRGICTRFCGTSFFTVGDDKTVKQWKMDGPGYGDEEEPL HTILGKTVYTGIDHHWKEAVFATCGQQVDIWDEQRTNPICSMTWGFDSISSVKFNPIETFLLGSCASDRNIVLYD MRQATPLKKVILDMRTNTICWNPMEAFIFTAANEDYNLYTFDMRALDTPVMVHMDHVSAVLDVDYSPTGKEFVSA SFDKSIRIFPVDKSRSREVYHTKRMQHVICVKWTSDSKYIMCGSDEMNIRLWKANASEKLGVLTSREKAAKDYNQ KLKEKFQHYPHIKRIARHRHLPKSIYSQIQEQRIMKEARRRKEVNRIKHSKPGSVPLVSEKKKHVVAVVK

#### 2032/2682 FIGURE 1842

TCAAACACATTTCAAAGCTTCAGGATCCTGAAAGGTTTTGCTCTACTTCCTGAAGACCTGAACACCGCTCCCATA AAGCCATGCTTGCCTTGGATTTCAGCGGCACAAGGCTCAGCTGAACCTGGCTACCAGGACCTGGCCCTGCACTC TCCTGTTTTTTCTTCTCTCATCCCTGTCTTCTGCAAAGCAATGCACGTGGCCCAGCCTGCTGTGGTACTGGCCA GCAGCCGAGGCATCGCCAGCTTTGTGTGTGAGTATGCATCTCCAGGCAAAGCCACTGAGGTCCGGGTGACAGTGC TTCGGCAGGCTGACAGCCAGGTGACTGAAGTCTGTGCGGCAACCTACATGATGGGGAATGAGTTGACCTTCCTAG ATGATTCCATCTGCACGGCCACCTCCAGTGGAAATCAAGTGAACCTCACTATCCAAGGACTGAGGGCCATGGACA CGGGACTCTACATCTGCAAGGTGGAGCTCATGTACCCACCGCCATACTACCTGGGCATAGGCAACGGAACCCAGA TGTTTTTTTATAGCTTTCTCCTCACAGCTGTTTCTTTGAGCAAAATGCTAAAGAAAAGAAGCCCTCTTACAACAG  ${\tt GGGTCTATGTGAAAATGCCCCCAACAGAGCCAGAATGTGAAAAGCAATTTCAGCCTTATTTTATTCCCATCAAT{f T}$ **GAGAAACCATTATGAAGAAGAGAGTCCATATTTCAATTTCCAAGAGCTGAGGCAATTCTAACTTTTTTGCTATCC** AGCTATTTTATTTGTTTGTGCATTTGGGGGGAATTCATCTCTCTTTAATATATAAAGTTGGATGCGGAACCCAAAT TACGTGTACTACAATTTAAAGCAAAGGAGTAGAAAGACAGAGCTGGGATGTTTCTGTCACATCAGCTCCACTTTC AGTGAAAGCATCACTTGGGATTAATATGGGGATGCAGCATTATGATGTGGGGTCAAGGAATTAAGTTAGGGAATGG CGTTTATAGCCGAAATGATCTTTTCAAGTTAAATTTTATGCCTTTTATTTCTTAAACAAATGTATGATTACATCA AGGCTTCAAAAATACTCACATGGCTATGTTTTAGCCAGTGATGCTAAAGGTTGTATTGCATATATACATATATA GTTTTTGTGTATTTGTTAATGGTTTGAATATAAACACTATATGGCAGTGTCTTTCCACCTTGGGTCCCAGGGAAG TTTTGTGGAGGAGCTCAGGACACTAATACACCAGGTAGAACACAAGGTCATTTGCTAACTAGCTTGGAAACTGGA TGAGGTCATAGCAGTGCTTGATTGCGTGGAATTGTGCTGAGTTGGTGTTGACATGTGCTTTGGGGCTTTTACACC AGTTCCTTTCAATGGTTTGCAAGGAAGCCACAGCTGGTGGTATCTGAGTTGACTTGACAGAACACTGTCTTGAAG ACAATGGCTTACTCCAGGAGACCCACAGGTATGACCTTCTAGGAAGCTCCAGTTCGATGGGCCCAATTCTTACAA ACATGTGGTTAATGCCATGGACAGAAGAAGGCAGCAGGTGGCAGAATGGGGTGCATGAAGGTTTCTGAAAATTAA 

## 2033/2682 FIGURE 1843

MACLGFQRHKAQLNLATRTWPCTLLFFLLFIPVFCKAMHVAQPAVVLASSRGIASFVCEYASPGKATEVRVTVLR QADSQVTEVCAATYMMGNELTFLDDSICTGTSSGNQVNLTIQGLRAMDTGLYICKVELMYPPPYYLGIGNGTQIY VIDPEPCPDSDFLLWILAAVSSGLFFYSFLLTAVSLSKMLKKRSPLTTGVYVKMPPTEPECEKQFQPYFIPIN

## 2034/2682 FIGURE 1844A

 $\tt GTGAAATTGAAGTTTGTGTATATGAAAGTTATCTTAGACATATTTTTAATTCTCCAGTTTCTGCAAAATAAT{\color{red}{\textbf{TAA}}}$ 

AATATACAGTAACTGGTCTCCTAAATCCTGAATTTAATGTATTAAATACTTATGTTCTTTATATTGGTGCCTTTT TAAAATGCATTGAGAGTGTTGGTTAGCTGTTGCAGCTGTACAACACTTTTAATATGCATTTTTAAAAATCACTTA AAATTGAGTACTATATAATTCATCTCTGCATTTTTAGTGCAAATCTTTAGAGCAATTTCTAATAGAGAAATTTTC AGCTCAGCTGTTAAAAGGAAAAGGAAACTTTGAAACTAGACTTTACTACCTTTTTAGTTTCATAGTATTTCTGAA TATGATTACAAGATTATGCAGGTAAAATATAGAGTGAAACTTTACCTGTGAATTGAATTATAATTTGTGTTTTTG TTTTGTTTTTAAGGAAGAATAAGTTCTGTATCAAACAAGAATTTATTAGATAATTTTTTGGTCAATAAAATACAG TATTCATTTGGATTTTCATCTCCAGACTAGTATTGTTCTAGTCTTGGAATCTGTATTTTCTAATCTGTTAGAAAA TCATATCACATTGCTATTCTCCAAAGCATAATCTCAAATGGTTTCATATCATGGTTGTGTATTACTTGCAATGGG TGTGTTAGGATATGACAGCTTTTTAAAAAATGAGCTGCTGGTTATACAAAGCAAATGGCATATGACCAAGAAGC TGTGATATGCTAGTGTTTCTTTTTATCATAGTGTATTACTAGGCCAAATAATGACACCTTGAATATTTTTACATT TATTGCAGAAACCTTAAACTTGGAATTTCCATAAGGTTTTTATGTAATATTCTATTTCTAGCTTTTTAGTTTTAT CTTGCTGTACTGTAAGTTTGAGGATATTTTTCACCTGCACTCTTAGGAATAAGTTCATAATTCTGTTTATGGGGC TTTCCTCCCATAACACTGCATTTGTATATTTTCTGTATAAAATATGTGTTGTGTATTAACCTTTATCCCATACAG AGAGTGGTACATGAATGACTAGTTTTCTAAGATGTCCTTTTTATTGTGAATAAAATATAAAAGTTAAAGGCCCTC AAATTACCTCAAGTGACAGATAGTAAGAAAAGCTTCTTGAGCAGGTGGAGGTCACTGAATCCCCTACTATGCACT TATCAAGATTTTACTTACTTTAATTTACTGGAAATTGATTTTTTAAAAAATGACTACACTGTAACAAGGGAAGGG ATCTGGGTTTTTTTGTTGTTTTTTATTCTTGTTTTTTTTAAGTAGTTCAAATTCTGAAACTGTGATTTAAAAATTTT TTACAGTCAAGCATTCTGATTTTGAACATAACTCCCTTCCCTTTCTGTGTAACAAAGGTCTCTCTGTTATCTCTT AAATTTTGTTACATCTCCCTCAGCCTCTTTCTTTGTCCGTCTCCCTTCTGTCATTGTCTATGGATGTTTACCTCT TCGTGATTTTTGTTGGTTGTATAATCTGCTGACGTATTTTTTATACTCAAGTGTAGTTTTCTATTAAAAAGAAAAG TGGTTGGATTAAAAATAGTAAGCTATGTAACCCTCATGTTACTTTCACTTTCAAATATTGGGTACCTAAAACATT **ACTTCAGAGATTATGTAATCCTATTATAGTATGTTTGCTTTCCTTTATTGTTGGATTTTACATTCTGATTTTGGCT** TTCCTCCAAAAAATGTATATCATGAAAGACTAGACAGTTATTTGCAAGTGTTTAGAAAGGTGTTAAAAAATGTAAA GCAAAGAGTCTTAACTTTCTCCTAATTGGGAGAAAAATGCTTTAACATTACTATAATAATATTCCAGGTTTGGAG GGGGTCTCCAGGCCCCATATTTGCTGTTAATAGTTGGACCTTTTAGACCATGTGTTATTTGCAATCCCAGAATGA TTGCTTCTGCTATTAGTTAAAAAGATACTATTCTTTTCTTTTCTGTACAAGTGCAATACTCCCCTTGAAGTCTTAA **AAACTATGGTGATTTTTTTTTTTTTTCTGACCTATTCTTCCTTTAGCTAATGACAAAAAGAAACTCATAAAAGTC** ATAGTATGTTAAAGGACACAACAAGCAAAGAGAAAAACACTCCACAATCAAAAGATTACAGAATGTGGAAACCAC TAGTCTGATCTCATGGTATCTTTATTTAAGCTAAATTTCCATGGAAATTAGTAATCTTTTGCTTGAAAAATGTGT CCTAAAGTTGAACTTTTTACAGATTGAATCTTCTTAGACCCTCGCCCAATGCTCTAAATTAAGAACCTAATACTT CACTTACATATCACCTATTGGAGAAATTTTTTTTTAAAAATATTTTGGAGCAGTCCTGTTTTCATACAAATTTTAAG TAAGAGGTATTTTTCTTATACATATTTATATGTAGTGTGCTAATTTTCTTTTTTTATACCTGTGTCCCTGTAGTA AAACTGCTGTAATATAAATACATGTTTTGTTAAAAGATAACATTTCTTTGGCATTTCTTTAAAGGCAGTTACTG NNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNAAGTTAAAATTCCATACCTTGTATGTCAGGTTTGCTAAGTGTAAT GTAGTTTTTTTTAAGGCTCAAATACCATACCTCAGAAAATGAGGTTTACTATGGAAATACTGAAACAGTCTTTGC AGCTGTGTGACAAGTCACTCTACTACATACTGATTTGGAGACCTCCGCTAAATAGTTTTATCACTGCAGACTAAA TTGTAATACTTTGTGAAAAGGATTATATTATAAAGGTTTGTACTGTCTGAGTGCACAGCTACTGGAATAAATTTA 

## 2035/2682 FIGURE 1844B

TGTATATTATTTACCAATAAAATAAACTTCTGACATACAGAAGTCCTAGGTCTTTACTCTTAAGTTT GACCTTCTACAGAGTCCTAGAGCATGCAGCCAGTTCTTTGTTTATACTAACAAGGTTTGGTCCAGT TCCTAATAAATTCTTAATTTGTATCTGAGATGTCAGCTTGGCCTTTACTGTCTATATTTGTATGAACATTTTGAT CAC

2036/2682 FIGURE 1845

VKLKFVYMKVILDIFLILQFLQNN

#### 2037/2682 FIGURE 1846

GAGCTATAAGACAACAGGACTGAACAGGGAGCCAACTGTTTCTTTGAACAGTAAATCAGGAACACCAATGGACCA AAATGAACACAGTCACTGGGGACCACATGCAAAGGGCCAATGTGCCAGCAGATCTGAGCTGAGAATCATCCTGGT TTCCCAGACCTTGACTAAGACTTGCAGCAAAAGTCAGGGAAGCTGGGGAAATAGAGAGATTGTCATTATTGACAC ACCAGATATGTTTTCTTGGAAGGACCACTGTGAAGCTCTGTACAAAGAGGTGCAGAGGTGCTACTTGCTCTCTGC ACCAGGACCCCATGTGCTGCTCCTGGTGACTCAGCTGGGCCGCTATACCTCACAGGACCAGCAGGCTGCACAGAG GGTGAAGGAGATCTTTGGAGAGGATGCCATGGGACACACAATTGTCCTCTTTACCCACAAGGAAGACCTCAATGG AATCTGTGCCTTTAATAACCGTGCTGAAGGGAGCAATCAGGATGACCAAGTGAAGGAACTAATGGACTGTATTGA GGATCTGTTGATGGAGAAAAATGGTGATCACTATACCAATGGGTTGTACAGCCTAATACAGAGGTCTAAATGTGG ACCTGTGGGATCAGATGAAAGAGTAAAGGAATTCAAACAGAGCCTTATAAAGTACATGGAAACTCAAAGAAGTTA TAGTATGTGCAATTTATTCTGCAGTTTGCTGTTTATTATACCCAAAAAGTTAATGATATTTTTGAGAACAGTTAT  ${\tt TAGACTAGAACGCAAGACTCCTAGGTTA} \underline{{\tt TAG}} {\tt TTACAGATCCCAGTTATTATTTACTCACTATCATTTAGTGGGTG}$ AATCACAGTAATTTCCCTGTAAAATGTGGTACCTGAAGTCATATTTGAGATTCTATGAAATGTTTAAATCTTAAC ATCACTCCAATTATTAATGAACCAAATCATACGATAAGTTACTGTTTGCATTGAAATATAATATCAAAGCCTTTT 

## 2038/2682 FIGURE 1847

SYKTTGLNREPTVSLNSKSGTPMDQNEHSHWGPHAKGQCASRSELRIILVGKTGTGKSAAGNSILRKQAFESKLG SQTLTKTCSKSQGSWGNREIVIIDTPDMFSWKDHCEALYKEVQRCYLLSAPGPHVLLLVTQLGRYTSQDQQAAQR VKEIFGEDAMGHTIVLFTHKEDLNGGSLMDYMHDSDNKALSKLVAACGGRICAFNNRAEGSNQDDQVKELMDCIE DLLMEKNGDHYTNGLYSLIQRSKCGPVGSDERVKEFKQSLIKYMETQRSYTALAEANCLKGALIKTQLCVLFCIQ LFLRLIILWLCILHSMCNLFCCLLFSMCNLFCSLLFIIPKKLMIFLRTVIRLERKTPRL

#### 2039/2682 FIGURE 1848A

CCCAATGTTTTCACTTAATAACTATGACAACCTTAAAGAATGTCACTTAAGTTAGAAAATAAGCAGGCTAAGAAG AGACTGATAACACATGCAGTATGAAAACATTATAGACTGCAGTTAGAAGACTAATTTTTTAAAAGCACTCAAAAC ATAGAACTAAGATTTAGAATATGTCCATTTATAATGAAATAATTTATGTTCATAATGTGAACATGTAAGATAA ATATCTGTATTTTGAACATTTAAAATACTCTGATGGTAAGGTTGCCAAAGTAATTTTGAATTCATAAAAATTGTT TATACCACAATAATGTGGGATATGTTTACAGGCTCTTTTATTTTGTGGTAGTTACTTTATAGTTCAGATGAATTT GCATTTCAGTCACTTATAGTAAATAAAGTATATTAAATATTTGTTGGAATAAAAATCTCAATGTAATAGGACATA GATAAATTATGCAACAGCCTGCTTTGATGAAAGCTGGTGCATTATGTGAGCTGCCACAGTTAATACTTTGTATTA ACATTGCTTACTTCCCCCATTTGCTTCACCTATCTGACTACAATTGCTGGAATCATTCTTTTTTGTGGTGCTTCCT CCAAGTGAAATAACTATGTTATTAAAACCTACTGGATTAATTTTATCAAATATCAGACTTACTGATCTCTTGGCA GAGATTTATTGGTGTCTCAGTGTGATCACAATACAAGTTGTAGCAACCATTTTATAAAACTCTTAGAGAATTATG TAGATAAAATGGAAATTACATAATCCTAAAACATTTTTGAGGGCTAATTGATAATAATTTCAGCAATTTTATTAA GAACCCAGTAAATTAATCCCTAATTTGTACGTTTTTTGTTCAACTTACCGTGTCTGCAACCATTATATAGACTTC AGTTAGATATTTTTTTATAGTCCTGATGAATTTGTTGTGAGTAGACACCACATAGTTATTTCTGTTTGCATATAA ATTTGCTGCTATTTATTTGTATGTTTTTCTACTGTAGTATGCTATTGATTTCTGAAGTTATAATCATAATTTTTA TTTTAGTAATCCAAGCTAAATGGGCAACCAGAAGTAATATCTGCTAGGGTGCAATCCATCAGCATTGGTTCAGTG CATATACATAAGTAAACCAGTTTAAAAAAATTTTACTAAGCAAAAGGTAGTAGCAATATTGCTAGTTAAAGATTA CCATTTTAGGGGAAAGTTCAAAGGTTTAACTTCCTGAAACCTTTTAAACTTTTCAGTGCAAGAATGAAAATGTTT GAAAGCCTTGTTAAGCTCATAAAAGTTTCATTTAAACACTGTAGAGTTTCCTACCTTTGTTGTGTAAAGGATATA GAAAATATTTTCTATGGACAGAGGTTGAAACTGTTAACTTCTTTAATTCATTGTTTAAAGGAGATAAAATGT TATTTGTGTGTCTTTCATGCTGTAAAGAAATGAATGTATCTTTCAAATGTCATTAGAATTATGGCTTGATTCTA TGTAATTTTAGAAGAAAAACTAATTTTCATTATAAACAAGAGCAATCATTGAAGCATTTTCAGATATAATGTACA TTCTTTTTCATTTTGCTTTGCCTCTAGAATAGAAACTTTTCAGAAAATTTGCACATACTGTTTGTAAGTATAAAA TACCATAGAGAACGTTGCCAGGCTTTGTCAAATGAGGACATTGTTGTGAGGGTGTGACTTTTGTGAAGCCAGAAA ACTGTGCCTAAGATTCATTACAGTGAGTATGTGCAGAGGCCCCTGACCCAGTAAATGCTTTTTGCCTTTTTATTC CCAATGTCTTGGACAGTTGAGACAACTTGGCCCAACTCTGAATTGTAGCAGTGATGTCTTATATGCTTACGAGTT TATATTAATTCAGCTGAACAAGAACTACATCTTAAACCACCTTTGTAGGTATGATTAATACGTGCAACAGCTGCT TTAAAAGGTGGTATTTATTATTCATCACTCATGAAACTTGACTCAGTGAGGACTTCATTATTTTTATTTCTCTTT CCACGTCTCCAACTTTTTAAAAATCACTAATTTAACTCTTTGTTAAGTACTCAAGTACAAAGTGATCTCTTCTTT CATGAACTTTGCTATAACTGTTGAAAGGATTGGTGTCAGGCTCTCTCAACCCTGGGAGTTTCCAAAATTTAGCAA ATATTACTTGTGATAAGCTTAAATGCCACATCGCTAAGTACAATTATTACCAGGAATCCGTCAAGGGGGAGATAG CCCCGCTCACACCCTTAGACCCAAACAGGTGCTGGTTCATGCTTTCTCCACAAATTGGCAGTTGGGTACTTCCCC ACTGTCATCACAGTTGAGCTCATTTTAACATATATTCAAAGAAGCTTTTTAGTTTCTACTCCTGAATTGTAGTGT TCAAGTTATTTGCCTTCCTGGGTAAGAAAATTTTAACCCAAGTCTGGGATTCTCTGGCACCTGTCTTTTCCCATC TTTCAATGAGTTGGCAAGATTAGGTCAAATTTCAATGCTAAATTTGATTTTTTGAATTTTAAATAGTTGCACTTT ATTTCATGCTGACCACCAACTTAATTTATACATTTTAAAATAAAATTATCCTAGAAGTGTTGTAAACGTGGGAAA ATTTTAATTAGTGTTGGAGGTCATTAGATTGGACCCAGGTTTAAATAATAATGATCTCTTCACAGCTTATTTGATG TTTAAGAGCAACTTGTGTGATCTTAGCTTTGCAGGTTTTCTGTAATTTATGTAGCACAATAAAGGATAACCAGTT GACTGTGTTACTGGACTCTGAGTTCTCACAGCTAGTTTCATCTAAGCTTGGTTTATTATCATTTCTGCTTTGGAT TTTTTTGTGCATCACATGAATACTTAGAAATCCATTTGTTTTTCAGTGTAGTACCTAGGGTGAAGTAGATGCTGCA CAAGTAAGTTTAAGGGAATAAAAGTCCCGACACTTTATATACATGTTGAGGGGCACGATTTAAGAGACTGAAACA GTTCTCCAGCATCAGGACATTACAGTTGTAATCTATGTTGTAATCTTTTCAAATAAGAAAAGCTACTCCTTATTC TCTACAGTGTAGGCTTAATTTTAGAACCGATAATTTACTATATCTGCATTATTGATATTTTAAGTAGTAGTTTT

## 2040/2682 FIGURE 1848B

2041/2682 FIGURE 1849

MFNCKIKMCFSN

#### 2042/2682 FIGURE 1850

GGCACGAGGGGCAAGCGGAACGCGGCAGCGGGGCTGGGCCTGTGCGGCGCCGCCGGAGCGCTTTGGAAGGCGCA GGCCCGCTTCTTTCTCGAGTCGGCCGGCTGGGACTTGCAGATCGCGCTAGCGAGCTTTTATGAGGACGGAGGGGA TGAAGACATTGTGACCATTTCGCAGGCAACCCCCAGTTCAGTGTCCAGAGGCACAGCCCCCAGTGATAATAGAGT GACATCCTTCAGAGACCTCATTCATGACCAAGATGAAGATGAGGAGGAAGAGGAAGGCCAGAGGTTTTATGCTGG GGGCTCAGAGAGAGTGGACAGCAGATTGTTGGCCCTCCCAGGAAGAAAGTCCCAACGAGCTGGTGGATGATCT CTTTAAAGGTGCCAAAGAGCATGGAGCTGTAGCTGTGGAGCGAGTGACCAAGAGCCCTGGAGAGACCAGTAAACC GAGACCATTTGCAGGAGGTGGCTACCGCCTTGGGGCAGCACCAGAGGAGAGTCTGCCTATGTGGCAGGAGAAAA GAGGCAGCATTCCAGCCAAGATGTTCATGTAGTATTGAAACTCTGGAAGAGTGGATTCAGCCTGGATAATGGAGA ACTCAGAAGCTACCAAGACCCATCCAATGCCCAGTTTCTGGAGTCTATCCGCAGAGGGGAGGTGCCAGCAGAGCT TCGGAGGCTAGCTCACGGTGGACAGGTGAACTTGGATATGGAGGACCATCGGGACGACGACTTTGTGAAGCCCAA AGGAGCCTTCAAAGCCTTCACTGGCGAGGGTCAGAAACTGGGCAGCACTGCCCCCAGGTGTTGAGTACCAGCTC TCCAGCCCAACAGGCAGAAAATGAAGCCAAAGCCAGCTCTTCCATCTTAATCGACGAATCAGAGCCTACCACAAA CATCCAAATTCGGCTTGCAGACGGCGGGAGGCTGGTGCAGAAATTTAACCACAGCCACAGGATCAGCGACATCCG ACTCTTCATCGTGGATGCCCGGCCAGCCATGGCTGCCACCAGCTTTATCCTCATGACTACTTTCCCGAACAAAGA GCTGGCTGATGAGAGCCAGACCCTGAAGGAAGCCAACCTGCTCAATGCTGTCATCGTGCAGCGGTTAACATAACC GCCCAGCCAGCTGCCTGGCCTCCTCTGTGTTTCCCATGGCCAGTGGCCATGCCCCATGGGGATCGCCCTCCT СААССААААААААААААААААА

## 2043/2682 FIGURE 1851

MAEERQDALREFVAVTGAEEDRARFFLESAGWDLQIALASFYEDGGDEDIVTISQATPSSVSRGTAPSDNRVTSF RDLIHDQDEEEEEEGQRFYAGGSERSGQQIVGPPRKKSPNELVDDLFKGAKEHGAVAVERVTKSPGETSKPRPF AGGGYRLGAAPEEESAYVAGERRRHSGQDVHVVLKLWKTGFSLDNGDLRSYQDPSNAQFLESIRRGEVPAELRRL AHGGQVNLDMEDHRDEDFVKPKGAFKAFTGEGQKLGSTAPQVLNTSSPAQQAENEAKASSSILINEAEPTTNIQI RLADGGRLVQKFNHSHRISDIRLFIVDARPAMAATSFVLMTTFPNKELADENQTLKEANLLNAVIVQRLT

#### 2044/2682 FIGURE 1852

GGCACGAGGGCTGGGCGACGGCGCCCCCATGTACCTGGGCGAGGTGTGCACGGCGAACGGCGAGCGCTGGGAGCT GCAGCTCAAGGGCGCCGGGCCCACGCCCTTCTCCAGACAGGCCGACGGTCGCAAGGTCCTACGGTCAAGCATCCG GGAGTTTCTATGCAGCGAAGCCATGTTCCACCTGGGAGTCCCCACCACACGGGCCGGCGCCTGCGTCACGTCCGA GTCCACGGTGGTGCGCGACGTGTTCTATGATGGTAATCCCAAATATGAACAATGCACGGTTGTGTTGCGTGTAGC TTCCACTTTCATAAGGTTTGGATCCTTTGAGATTTTTAAGTCTGCAGATGAGCACACAGGGCGTGCAGGCCCCAG CGTGGGGAGGAACGACATTCGAGTGCAGCTGCTCGACTATGTCATCAGCTCCTTTTACCCCGAGATCCAGGCTGC TCATGCCAGCGACAGCGTGCAGAGAAATGCTGCCTTCTTCCGGGAGGTGACGCGGCGCACGGCGCGGATGGTGGC CGAGTGGCAGTGTGTGGGCTTCTGCCACGGCGTGCTCAACACCGACAACATGAGCATCCTGGGGCTCACCATCGA CTACGGGCCCTTTGGCTTCCTGGACAGGTACGACCCCGACCACGTGTGCAATGCCTCCGACAACACCGGCCGCTA CGCGTACAGCAAGCAGCCCGAGGTGTGCAGGTGGAACCTGCGGAAGCTGGCCGAGGCCCTGCAGCCGGAACTGCC CCTGGAGCTGGGGGAGGCCATCCTGGCCGAGGAGTTTGACGCCGAGTTCCAAAGGCACTACCTGCAGAAGATGCG CAGGAAGCTGGGCCTCGTGCAGGTGGAGCTGGAGGAAGACGGGGGCGCTGGTGTCCAAGCTCCTGGAGACCATGCA  ${\tt TCTGACCGGTGCCGACTTCACAAACACCTTCTACTTGCTGAGCTCCTTCCCAGTGGAGCTAGAGTCGCCAGGCCT}$ GGCGGAATTCCTGGCCAGGCTGATGGAGCAGTGTGCCTCCCTGGAGGAGCTGAGGCTGCCCTTCCGGCCCCAGAT GGATCCCCGGCAGCTATCCATGATGCTGATGCTGGCGCAGTCAAACCCGCAGCTGTTCGCGCTTATGGGCACCCG GGCAGGCATCGCCAGGGAGCTGGAGCGTGTGGAGCAGCAGTCTCGGCTGGAGCAGCTGAGTGCGGCAGAGCTGCA GAGCAGGAACCAGGGCCACTGGGCTGACTGGCTACAGGCGTACAGAGCCCGGCTGGACAAGGACCTGGAAGGCCCG  ${\tt TGGGGACGCTGCCGCTGGCAGGCTGAGCACGTGCGCGTGATGCACGCCAACAACCCGAAGTACGTGCTGAGGAA}$ CTACATCGCGCAGAATGCCATCGAGGCTGCCGAGCGCGGGGACTTCTCAGAGGTGCGGCGGGTGCTGAAACTACT GGAGACCCCTTACCACTGCGAGGCGGGGGCCGCCACAGACGCCGAGGCCACGGAAGCCGACGGGGCGGACGGCAG GCAGCGCTCCTACAGCAGTAAGCCCCCGCTCTGGGCAGCAGAACTGTGCGTGACATGATCTTCGTAACGGCCTCG GCACGCTCCACACCCCTGGAGTCTCCCGAGGCCCCCATGTGCTGATGGCCAAGATGATGCCAGGCTGCCCT ATACACTGGGGGATTCTGCCCTGGCCCATGCACACCCGTCTTTCCATGATGGCAGAGACATCCAGTCAGGACCTG 

#### 2045/2682 FIGURE 1853A

 ${\tt TCGTGTTTCGGTGAGTGTGGCGGAG} {\tt ATC} {\tt GAGAGCCGGGATCCCGCCCAGCCGATGTCGCCTGGAGAAGCGACGCA}$ GAGTGGCGCCCGGCCTACCGACCGCTATGGCCTATTGAAGCACAGTCGCGAGTTCTTGGACTTCTTCTGGGACAT  $\tt TGCGAAGCCTGAGCAGGAGACGCGACTTGCGGCCACGGAGAAGCTGCTGGAGTATCTGCGTGGCAGGCCGAAGGG$ GTCCGAGATGAAATATGCCCTGAAGCGTCTAATCACGGGACTCGGGGTCGGGCCGAGAAACAGCCCGGCCCTGCTA  ${\tt CAGTTTGGCCCTGGCACAGCTGTTACAGTCTTTTGAAGACCTCCCCTTGTGCAGCATCCTGCAGCAGATACAAGA}$ AAAATATGACCTGCATCAGGTGAAGAAGGCAATGCTGAGACCTGCTCTCTTTGCAAACCTGTTTGGAGTGCTCGC CCTCTTTCAGTCAGGTCGGCTGGTGAAGGACCAGGAGGCACTGATGAAGTCGGTGAAGCTGCTGCAGGCCCTGGC CCAGTACCAAAACCACTTGCAGGAGCAGCCCCGGAAGGCCCTGGTGGACATCCTCTCCGAGGTCTCGAAGGCCAC ATTGCAGGAGATCCTGCCGGAGGTCCTCAAAGCCGACTTGAATATACTCAGCTCCCCTGAACAGCTAGAGCT CTTCCTCGGCCCAGCAGAAGGTGCCCTCCAAGCTCAAGAAGCTGGTGGGATCCGTGAACCTATTCTCAGATGA GAATGTCCCCAGGCTGGTGAATGTGCTGAAGATGGCCGCCTCCTCTGTGAAGAAGGACCGCAAGCTGCCCGCCAT TGCTCTGGACCTGCTCCGCCTGGCGCTCAAGGAAGACAAGTTCCCACGGTTCTGGAAGGAGGTGGTGGAACAAGG GCTGCTGAAGATGCAGTTCTGGCCAGCCAGCTACCTGTGTTTCCACCTGCTGGGCGCGCCCCTGCCCCTGCTGAC CAAGGAGCAGCTGCACCTGGTGATGCAGGGAGACGTGATCCGCCATTACGGGGAGCACGTGTGCACTGCTAAGCT CCCAAAGCAGTTCAAGTTTGCCCCAGAGATGGACGATTACGTGGGCACCTTCCTAGAGGGGTGCCAGGATGACCC GCGGGTCGTGCGGTTCCTGAGCCCTCCGGCCCTGCAGGGCTATGTGGCCTGGCTGCGGGCCATGTTTCTCCAGCC AGACCTGGACTCCTTGGTTGACTTCAGCACCAACAACCAGAAGAAGCCCAGGATTCATCGCTCCACATGCCTGA GCGAGCTGTGTTCCGGCTGAGGAAATGGATCATCTTTCGATTGGTGAGCATTGTGGACAGCCTGCACCTGGAGAT CCAGATCCCTGAGACAAAGCACCCGTTCTCCTTCCCTTTGGAAAACCAGGCCCGAGAGGCTGTCAGCAGTGCCTT CTTCAGTCTGTTGCAGACCCTCAGCACGCAGTTCAAGCAGGCACCGGGCCAGACCCAGGGTGGGCAGCCCTGGAC CTACCACCTGGTGCAATTCGCAGACCTCCTGTTGAATCACAGCCACAACGTGACCACCGTGACACCCTTCACTGC GCAGCAGCACCAGGCCTGGGACCGGATGCTGCAGACTCTGAAGGAGCTGGAGGCCCACTCCGCAGAGGCCAGGGC TGCTGCCTTCCAGCACCTTCTGCTCTTCGTGGGCATCCACCTCCTCAAGTCCCCTGCAGAGAGCTGTGACCTGCT GGGTGACATCCAGACCTGCATCAGGAAAAGTCTGGGAGAGAAAGCCCCGCCGGAGCCGCACCAAGACCATCGACCC CCAGGAACCCCGTGGGTAGAGGTGCTGGTGGAGATCTTGCTGGCCCTGTTGGCCCAGCCCAGCCACCTCATGCG  ${\tt CCAGGTGGCCCGGAGCGTGTTTGGCCACATCTGCTCCCACCTGACCCCGCGTGCCCTGCAGCTAATTCTGGATGT}$ GAGCGAGGAGGAGGACGCGACGGGGACGTGGATCAGGGCTTCCGGGAACAGCTGATGACCGTGCTGCAGGCTGG GAAGGCGCTGGGTGGAGAGGACAGTGAGAACGAGGAGGAGCTGGGGGGATGAGGCCATGATGGCCCTGGACCAGAG CCTCGCCAGCCTCTTTGCCGAGCAGAAGCTGCGTATCCAGGCCCGGCGAGACGAGAAGAACAAGCTGCAGAAGGA GAAGGCTCTGCGGCGCGACTTCCAGATCCGGGTGCTGGACCTGGTGGAGGTGCTAGTGACCAAGCAGCCCGAGAA TGCCCTGGTCCTGGAGCTGCTGGAGCCGCTGCTGAGCATCATCCGGCGCAGCCTGCGCAGCAGCAGCTCCAAACA GGAGCAGGACCTTCTGCACAAGACGGCGCGCATCTTCACGCATCACCTGTGCCGTGCCCGGCGCTACTGCCACGA  $\tt CTTGGGTGAGCGCGCAGGGGCCCCAGGTGGAGCGGTTGGTGCAGCAGGCTGGCCGCCAGCCCGACTC$ CCCCACGCCCTCTACCACTTCAACGCCTCTCTCTACCTGCTCCGGGTCTTGAAGGGCAACACTGCTGAGGGCTG CGTGCATGAGACACAGGAGAAGCAGAAAGCTGGCACTGACCCCAGCCACATGCCCACGGGCCCGCAGGCTGCCAG CCTCACAGTTCCCATGTTCCTCAGCCTCTTCTCCCGGCACCCGGTGCTCTGTCAGAGCCTGCTCCCCATCCTGGT GGTGAGGTCGTGCTTTGAGGACCCCGAGTGGAAGCAGCTGATGGGCCAGGTCCTAGCAAAGGTCACCGAGAACTT GCGCGTGCTGGGGGGAGCCCAGACCAAGGCGCAGCATCAGCAGGCACTGTCCTCCCTGGAGCTGCTCAACGTTCT CTTCAGGACCTGCAAACATGAGAAGCTGACCTTGGACCTGACGGTGCTCCTGGGTGTGCTGCAGGGGCAACAGCA GAGCCTACAGCAGGGGGCACACTCCACCGGCTCCAGCCGCCTGCACGACCTCTACTGGCAGGCCATGAAAACCCT GGGAGTCCAGCGCCCCAAGTTGGAGAAGAAGGATGCCAAGGAGATCCCCAGTGCCACCCAGAGCCCCATCAGTAA GAAGCGGAAGAAAAAGGGATTCTTGCCAGAGACGAAGAAGCGCAAGAAACGCAAGTCAGAGGATGGCACGCCAGC

## 2046/2682 FIGURE 1853B

#### 2047/2682 FIGURE 1854

 ${\tt MESRDPAQPMSPGEATQSGARPADRYGLLKHSREFLDFFWDIAKPEQETRLAATEKLLEYLRGRPKGSEMKYALK}$  ${\tt RLITGLGVGRETARPCYSLALAQLLQSFEDLPLCSILQQIQEKYDLHQVKKAMLRPALFANLFGVLALFQSGRLV}$ KDQEALMKSVKLLQALAQYQNHLQEQPRKALVDILSEVSKATLQEILPEVLKADLNIILSSPEQLELFLLAQQKV PSKLKKLVGSVNLFSDENVPRLVNVLKMAASSVKKDRKLPAIALDLLRLALKEDKFPRFWKEVVEQGLLKMQFWP ASYLCFHLLGAALPLLTKEQLHLVMQGDVIRHYGEHVCTAKLPKQFKFAPEMDDYVGTFLEGCQDDPERQLAVLV AFSSVTNQGLPVTPTFWRVVRFLSPPALQGYVAWLRAMFLQPDLDSLVDFSTNNQKKAQDSSLHMPERAVFRLRK WIIFRLVSIVDSLHLEMEEALTEQVARFCLFHSFFVTKKPTSQIPETKHPFSFPLENQAREAVSSAFFSLLQTLS TQFKQAPGQTQGGQPWTYHLVQFADLLLNHSHNVTTVTPFTAQQHQAWDRMLQTLKELEAHSAEARAAAFQHLLL FVGIHLLKSPAESCDLLGDIQTCIRKSLGEKPRRSRTKTIDPQEPPWVEVLVEILLALLAQPSHLMRQVARSVFG HICSHLTPRALQLILDVLNPETSEDENDRVVVTDDSDERRLKGAEDKSEEGEDNRSSESEEESEGEESEEEERDG DVDQGFREQLMTVLQAGKALGGEDSENEEELGDEAMMALDQSLASLFAEQKLRIQARRDEKNKLQKEKALRRDFQ IRVLDLVEVLVTKQPENALVLELLEPLLSIIRRSLRSSSSKQEQDLLHKTARIFTHHLCRARRYCHDLGERAGAL HAQVERLVQQAGRQPDSPTALYHFNASLYLLRVLKGNTAEGCVHETQEKQKAGTDPSHMPTGPQAASCLDLNLVT RVYSTALSSFLTKRNSPLTVPMFLSLFSRHPVLCQSLLPILVQHITGPVRPRHQACLLLQKTLSMREVRSCFEDP EWKQLMGQVLAKVTENLRVLGEAQTKAQHQQALSSLELLNVLFRTCKHEKLTLDLTVLLGVLQGQQQSLQQGAHS TGSSRLHDLYWQAMKTLGVQRPKLEKKDAKEIPSATQSPISKKRKKKGFLPETKKRKKRKSEDGTPAEDGTPAAT  ${\tt GGSQPPSMGRKKRNRTKAKVPAQANGTPTTKSPAPGAPTRSPSTPAKSPKLQKKNQKPSQVNGAPGSPTEPAGQK}$ QHQKALPKKGVLGKSPLSALARKKARLSLVIRSPSLLQSGAKKKAQVRKAGKP

#### 2048/2682 FIGURE 1855

AGGTTACTATAGTGTCTGCTCCTACCCCTGGGACAAGATCCCCTAATGAGCTGGCAGGTGGGCGTGGGGGGCACA GGTACAGCTTGGCTTCTCAGCTTTGCTCCCCTATCCTCTGCTTTGCCATGAATCTCTCATCCAGCCCCGCAGGGA TCTGCCTGGCCAGCAGTGAGCCTGAGCCCCTTTCATCCTGGGACCTGCCGACCACGGCTCACATCCTCCTGGGTG AAGAATGTCACCTTGCTTCCTATCTGCCTCTTTCGTGGTTGGCTGGGGAGGGGGACCGGGGGGTGGGGTGAGGTT AACCTCATTGTTGTCTTATATGGTCATTTAAATCTCCCAGGGCTTCCTCCAAGGGCCAAAAATAATCCGGAGACA  ${\tt TCCCTGGCTCTCCATCCTCATTCCTGCCTGAAGCC}$ TTTCACTCCTGCTCTGCACCCTCCAGGTCCACTGCACCTCCTGAGAGTTCGCCGGCCCCGGGCCCCAATGGGCTTG TTCCAAGGGGTCATGCAGAAATACAGCAGCAGCTTGTTCAAGACCTCCCAGCTGGCGCCTGCGGACCCCTTGATA TACCCAGGGACCATCGACCAGCGCACCCTGCAGGAGGAAACAGCCGTTTACTTGGCAACGTGCAGGGGCCACCTG GACTGTCTCCTGTCACTGCTCCAAGCAGGGGCAGAGCCGGACATCTCCAACAAATCCCGAGAGACACCGCTCTAC AACCGCGGCTGGACCGCTCTGCACGAGTCTGTGTCTCGCAATGACCTGGAGGTCATGCAGATCCTGGTGAGCGGA GGAGCCAAGGTGGAATCCAAGAACGCCTACGGCATCACCCCCTTGTTCGTGGCCGCCCAGAGTGGACAGTTGGAG GCCTTGAGGTTCTTAGCCAAGTACGGTGCTGACATCAACACGCAGGCCAGCGACAACGCGTCTGCCCTCTACGAG GCCTGCAAGAATGAGCATGAGGAGGTGGTGGAGTTTCTGCTGTCACAGGGTGCCGACGCCAACAAGACCAACAAG GACGGCTTGCTCCCGCTGCACATCGCCTCCAAGAAGGGCAACTACAGGATCGTGCAGATGCTGCCGGTGACC AGCCGCACGCGCATACGCCGTAGCGGCGTCAGTCCGCTGCACCTGGCGGCCGAGCGCAACCACGACGAGGTGCTG CTGGACCACGCCGAACATCGACGCCTATATCGCCACGCACCCCACCGCCTTCCCCGCCACCATCATGTTCGCC ATGAAGTGCCTGTCGCTCAAGTTCCTCATGGACCTGGGCTGCGACGGCGAGCCCTGCTTCTCATGCCTCTAC GGCAACGGCCCGCACCCGCCGCCCGCAGCCCTCCAGCAGGTTCAACGACGCCCCGCGGCCGACAAGGAGCCC AGCGTGGTGCAGTTCTGTGAGTTCGTATCTGCCCCAGAGGTGAGCCGCTGGGCGGGGCCCATCATCGATGTCCTC CTGGACTACGTGGGCAACGTGCAGCTCTGCTCGCGGCTGAAGGAACACATCGACAGCTTTGAGGACTGGGCCGTC ATCAAGGAGAAGGCAGAACCTCCAAGACCTCTGGCTCACCTTTGCCGACTGCGGGTTCGAAAGGCCATTGGGAAA TAACTGGGGCCACGGGGAGAGAGGGGTAGCCCCTCAGACTCTTCTTACTAAGTCTCAGGACGTCGGTGTTCCCAA GGGTCTCAGGGCCCAGAGCTTTGGCCAGAGCAGAGAACAGAATGTGTCAAGGAGAAGAATCATTTGTTTACAAAC TGATGAGCAGATCCCAGACCTTCTCTACCTTCAGGAATGGCAGAAACCTCTATTCCTGGGGCCAGGGCAGAGCTT GAGGTGTTCTGGGGAAGGTGGTGCTCAGAGCCTTCCCTGTGCCCCTCCACTTGTTCTGGAAAACTCACCACTTGA CTTCAGAGCTTTCTCTCCAAAGACTAAGATGAAGACGTGGCCCAAGGTAGGGGGTAGGGGGAGCCTGGGTCTTGG AGGGCTTTGTTAAGTATTAATAATAAATGTTACACATGTG

## 2049/2682 FIGURE 1856

MTRFSYAEYFSLFHSCSAPSRSTAPPESSPARAPMGLFQGVMQKYSSSLFKTSQLAPADPLIKAIKDGDEEALKT MIKEGKNLAEPNKEGWLPLHEAAYYGQVGCLKVLQRAYPGTIDQRTLQEETAVYLATCRGHLDCLLSLLQAGAEP DISNKSRETPLYKACERKNAEAVKILVQHNADTNHRCNRGWTALHESVSRNDLEVMQILVSGGAKVESKNAYGIT PLFVAAQSGQLEALRFLAKYGADINTQASDNASALYEACKNEHEEVVEFLLSQGADANKTNKDGLLPLHIASKKG NYRIVQMLLPVTSRTRIRRSGVSPLHLAAERNHDEVLEALLSARFDVNTPLAPERARLYEDRRSSALYFAVVNNN VYATELLLQHGADPNRDVISPLLVAIRHGCLRTMQLLLDHGANIDAYIATHPTAFPATIMFAMKCLSLLKFLMDL GCDGEPCFSCLYGNGPHPPAPQPSSRFNDAPAADKEPSVVQFCEFVSAPEVSRWAGPIIDVLLDYVGNVQLCSRL KEHIDSFEDWAVIKEKAEPPRPLAHLCRLRVRKAIGKYRIKLLDTLPLPGRLIRYLKYENTQ

#### 2050/2682 FIGURE 1857

GAGGGCTCAGGGGAGCAGCCGGGCCCACAACCACAGCATCCCGGAGACCACCGCATCCGCGACGGCGACTTCGTG GTGCTGAAACGTGAAGATGTGTTTAAAGCAGTACAAGTCCAGCGGAGAAAAAAAGTAACTTTCGAAAAAACAGTGG TTCTACCTGGATAACGTCATTGGCCATAGTTATGGAACTGCATTTGAAGTGACCAGTGGAGGAAGTCTACAGCCC AAGAAGAAGAGGGAAGAGCCTACTGCAGAGACTAAAGAAGCGGGCACTGATAATCGAAATATAGTTGATGATGGG AAATCTCAGAAACTTACTCAAGATGACATAAAAGCTTTGAAGGACAAGGGCATTAAAGGAGAGAAATAGTTCAG AAAAAATATGAAGCCATCATTACTGTTGTGAAGCCATCCACCCGTATTCTTTCAATTATGTATTATGCAAGAGAA CCTGGAAAAATTAACCACATGAGATACGATACACTAGCCCAGATGTTGACGTTGGGAAATATCCGTGCTGGCAAC AAAATGATTGTGATGGAAACGTGTGCAGGCTTGGTGCTGGGTGCAATGATGGAACGAATGGGAGGTTTTGGCTCC ATTATTCAGCTATACCCTGGAGGAGGACCTGTTCGGGCAGCAACAGCATGTTTTGGATTTCCCAAATCTTTTCTC AGTGGTCTTTATGAATTCCCTCTCAACAAAGTGGACAGTCTTCTACATGGAACATTTTCTGCCAAGATGTTATCT TCAGAGCCAAAAGACAGTGCTTTGGTTGAAGAAAGTAATGGCACACTGGAGGAAAAACAGGCTTCTGAACAAGAG AATGAAGACAGCATGGCAGAGGCCCCAGAGAGCCACCCAGAAGACCAGGAAACAATGGAAACAATTTCTCAA GATCCAGAACATAAGGGGCCTAAAGAGAGAGGAAGCAAAAAAGATTATATTCAGGAAAAAACAGAGGAGACAAGAA CGTTTCCACCCCACTCCCTGCTGCTGTCTTTGCTGGACTTTGTGGCCCCTTCAAGGCCGTTTGTGGTCTACTGT CAGTACAAAGAGCCTCTGTTGGAATGCTACACAAAACTGCGGGAGAGGGGAGGGGTCATCAACCTCAGGCTGTCT GAAACCTGGCTCAGAAATTATCAGGTTTTGCCAGATCGAAGTCATCCTAAACTGCTGATGAGTGGAGGTGGGGGT TATCTTCTCCCGGCTTCACCGTTGCCATGGACAACCTTAAAGCAGACACCAGCCTCAAATCTAATGCAAGCACT TTAGAATCACACGAGACTGAGGAGCCTGCAGCTAAAAAACGAAAATGCCCAGAGTCTGACTCT<u>TAA</u>CCCTTTTGA GAATTGCTCTGAATTTTGTTCTCAGGCATTATACAGTTAGTAATTAAACTTTAAATGCCATTACTACTTGTTTTT GACACAGATGCATTTGGTCTGTCAAAACTGCAACCATGGGGTATGTAGTATGACCAACTGCATTTAACAAAACTC CTCTAAGTACTTCTAAATATTCTGTGCAAATATCTTGAGAACTTCAACATCCTAAAAATGTGTTTCTACAAGACT TTATATTTTAAGCTAAGTGGAATAATACAACGTAACTAAAACATGGCGGGTACCGAAAGGAGGGCAATTCATGGA AGAAATTTCCTCTGTTCATTCCGTTCTCTCAACCTAAGCAATATGGATGTGTGAGTGTGATTTATTATGGTA CCAAAAATGTCCACCTTCTTTCCTGCAGCGGAATAAGCTTTTTTGAAATGCTGAGGTTTTATTTTAATAGTTGAC AACCTGGGAAAGTTCTGAGTATTTATTTTACTGCTCTTTTTTGTGCATAGAAAGGTTTAGTAGGGTACTTTTTTG ΑΑΑΑΑΑΑΑΑΑΑΑΑΑΑΑΑΑΑΑΑ

## 2051/2682 FIGURE 1858

MEGSGEQPGPQPQHPGDHRIRDGDFVVLKREDVFKAVQVQRRKKVTFEKQWFYLDNVIGHSYGTAFEVTSGGSLQ
PKKKREEPTAETKEAGTDNRNIVDDGKSQKLTQDDIKALKDKGIKGEEIVQQLIENSTTFRDKTEFAQDKYIKKK
KKKYEAIITVVKPSTRILSIMYYAREPGKINHMRYDTLAQMLTLGNIRAGNKMIVMETCAGLVLGAMMERMGGFG
SIIQLYPGGGPVRAATACFGFPKSFLSGLYEFPLNKVDSLLHGTFSAKMLSSEPKDSALVEESNGTLEEKQASEQ
ENEDSMAEAPESNHPEDQETMETISQDPEHKGPKERGSKKDYIQEKQRRQEEQRKRHLEAAALLSERNADGLIVA
SRFHPTPLLLSLLDFVAPSRPFVVYCQYKEPLLECYTKLRERGGVINLRLSETWLRNYQVLPDRSHPKLLMSGGG
GYLLSGFTVAMDNLKADTSLKSNASTLESHETEEPAAKKRKCPESDS

### 2052/2682 FIGURE 1859

# 2053/2682 FIGURE 1860

 ${\tt MTVKTLHGPAMVKYLLLSILGLAFLSEAAARKIPKVGHTFFQKPESCPPVPGGSMKLDIGIINENQRVSMSRNIE} SRSTSPWNYTVTWDPNRYPSEVVQAQCRNLGCINAQGKEDISMNSVPIQQETLVVRRKHQGCSVSFQLEKVLVTV GCTCVTPVIHHVQ$ 

### 2054/2682 FIGURE 1861

### 2055/2682 FIGURE 1862A

CGCCCGCCGTTGCGGCGTGGGAGATTAATATTAAGATTGGAAGTTTGTGTCTTTTGCTGGATATTGGAAATTGAA TGTAATGGCAACAGAATTTATAAAGAGTTGCTGTGGAGGATGTTTCTATGGTGAAACAGAAAAACACAACTTTTC TGTGGAAAGAGATTTTAAAGCAGCAGTCCCAAATAGTCAAAATGCTACTATCTCTGTACCTCCATTGACTTCTGT TTCTGTAAAGCCTCAGCTTGGCTGTACTGAGGATTATTTGCTTTCCAAATTACCATCTGATGGCAAAGAAGTACC ATTTGTGGTGCCCAAGTTTAAGTTATCTTACATTCAACCCAGGACACAAGAAACTCCTTCACATCTGGAAGAACT TGAAGGATCTGCCAGAGCATCTTTTGGAGATCGAAAGGTAGAACTTTCCAGTTCATCCCAGCACGGACCTAGCTA TGATGTGTATAACCCATTCTATATGTATCAGCACATTTCACCTGATTTGAGTCGACGCTTTCCTCCCCGTTCAGA AGTGACGAGACTGTATGGATCGGTTTGTGATTTAAGGACGAACAAACTTCCCGGTTCCCCTGGGCTAAGCAAATC TATGTTTGATCTTACAAACTCATCTCAGCGATTCATCCAGAGACATGATTCATTGTCCAGTGTACCCAGTAGTTC TTCTTCAAGGAAAAATTCTCAGGGGAGTAACAGAAGCCTGGATACAATTACTCTATCAGGAGATGAAAGGGACTT TGGGAGACTGAATGTGAAATTGTTTTATAATTCTTCAGTAGAACAGATCTGGATCACAGTTTTACAGTGCAGAGA TTTAAGTTGGCCCTCTAGTTATGGAGACACTCCTACTGTTTCTATAAAAGGAATACTTACATTGCCCAAACCAGT GCATTTCAAATCTTCAGCCAAGGAAGGTTCCAACGCTATTGAATTTATGGAAACGTTTGTATTTGCTATTAAACT TCAAAATCTACAAACTGTAAGACTTGTATTTAAGATTCAAACCCAGACTCCCAGGAAGAAAACCATTGGAGAATG CTCAATGTCACTCAGAACCCTTAGCACACAGGAAATGGATTACTCTTTGGATATAACACCACCTTCAAAAATTTC TGTTTGCCATGCAGAACTTGAATTGGGGACTTGTTTTCAAGCAGTAAATAGCAGAATTCAGTTACAAATTCTTGA GGCACGGTACCTTCCAAGCTCATCAACACCTCTGACTTTGAGTTTTTTCGTGAAGGTGGGAATGTTTAGCTCGGG AGAGTTGATTTATAAGAAAAAGACACGCTTACTGAAGGCCTCCAATGGAAGAGTCAAGTGGGGAGAGACTATGAT TTTTCCACTTATACAGAGTGAAAAAGAAATTGTTTTTCTCATTAAGCTTTACAGTCGAAGCTCTGTAAGAAGAAA ACACTTTGTGGGCCAGATTTGGATAAGTGAAGACAGTAATAACATTGAAGCAGTGAACCAGTGGAAAGAGACAGT AATAAATCCAGAAAAGGTTGTTATCAGGTGGCACAAATTAAATCCATCT**TGA**AGACTTCACACATTAATTTGGTG AAGAACTTGACATTCTTTTAGAAGACTTATGATTTCAATTTGCTACCAATGAGAAGAGGCAAATCAACAAATTTG TCAATTTATGGGGGCTATAATTATGGTATATAATGTATCTGATAGAAAATTTGATAAGAAAATGTAATGAATTTT TGTATTTTAAGCTTTACTTAGATATTCAAAACCTGGTATATCAAGTCTCTGTTAGTACTATTGGCATTTAGAAGA CTTTACCATTATTCAGTGCTAGGCATTATTGATTAGGTCTTGGCTCCACTGTTTACCTCTTGCTATGTATTTTC TCCCGGTAAAAATGAATTGAACCATTTCAACTATTTTCTATATTTGGAGAAAGTTTGTGCCCTGTGTTTTATAAT TTTTTTACCCATAAGACATCACATTATCCCTTTGTAAGCTACTTATCTCCAAAAAACTTCAGAAATAGAAAACTA TTTTCTTCCCTCAAATATTTTACTATTTGTTTTATTTGGAGTTAAAATAAGAGTATCATCCATATGGTCCATCCT AATTCACAGAATTAAATGAGCTTAAATAGAAAATTCAGTATTTTATGATAATCACTTCGTTTTTAGTTTTTAAAA TTTAGATTATTCTATAATTTACCGTGTTTGAGTATTTTCTCATTTTTTTCATAACCATACCTGATTATACTGTGT AACAAATATTTTCTATTGCAGTTTTCTTTCCAGTACTTATTAGAACTCAGTATTTGGAAATAATTTCAGCTTAAT TGACCATAAGAACTGTGGCCAAAAAGAACAGTTTTTTGGAGAGGCAGATGACATTATACCTGATTTTAGAAAATC ACTTTGTCCCAGGCATGCAGAGAAGATGGTGATATTTTAGGCCAGGAGTATACCTTGCTATAACCTAAGCATGC CTTCTTTATTCCAGCTCCTATGTTCTGTGTATATCATTAACATTTTCCCAAATAAACACTTAATTCTCTTTTCCC TAGGTGCCATCTCCTCAAGCTACAAAATGTCCACATCTTATATCCCCTTTGCTTCTACTGCTCTGATTTTGTGGT ACCAGTACTCTCTGCCACTGAACATTTTGAAATATTTTTGTTTTAGATTTGCAAAAAATGACATATAGGTCAGTA CTCACATGGATTTTTAAGATAAATCACCTGTGTGATAATATTTTGAATCTGAGACGAATACAACTTTTAAAAATT GTTTTTAAAAATTGAGCTTTTTTTTTTAGAGCAGTTGTAGGTTAACAGAAAAATTGAGAGGAAGATAGAGATTTCC TTTCTCCCCTGACAAAGCCCTCAACAGCCTCCCAGGCTATCAGTATCCTGCACCACAATGGTACATTTGTTACAA TCAATGAACCTACTCTGAAACATCATTATCATCCAAAGTTCATGGTTTACATTAGAGTCCCCTCTTGGTGTTATA CATGCTAGAGGACAAATATATGATGATATGTATGCATCATTATAATATAGTATAGTTTCGCTGCCCCTAAACATC 

## 2056/2682 FIGURE 1862B

GCTTTATTGTTTATTTTAAAAGCTACAATTTGTTTTAGCTGGTTTCTCTGTTCTATTAATGCTTTGAATTTCCAA ATTTAATATGTAGTCATGCATTTAACTTAATATTTAATTTTGATTTAATTTTCTATATTCTTACAAT AAAGAAAACCCTTACATTTAAAAGAGCTTTCAGGTACAGAAGTATTGATACAACTAAGATCCTAAATGTTTTAAT TAGTGTTTACTTAAGCCTTTTTCAGGTGAGGAGGTACTAATGCTGGTTATTTCCTTGAAGCTTTATGTGGACCTA TAAATAAAAATCCAATCTCCTGCTAATAGGTATGCATATTGTGAGAAAAACGTTAGGAGCTGGTAGTAAAAAATG AGATTCTATGCCAAAATAACTTCTCTTCATATTTGCCTAGGCATTTCTTGACCTTTACCCACTTACGCAAGGAGA AGGAAATCATAATGATGTCATGTGATCAAAGGAAACCATGGAAGGGTTCACGCTGATAGCTGATAGCTTTTACAG TGCTCATTCCTAACAGTGGATTTACTTGTAAGCTTTCAGATCAACACAAATAGCTGCAGCCTGGGTTAAAATATA ACATCACTATTTGGCTTTTGTTTTGCATGATTTTTAAAAGCAGTACTCCTAGGGAAATGGCCTCTGAAGTATATC AGTTTCATCTCTTACCAAGACTGTTAAGAAGAAACTAGTGGGATTTTGAACAAGTTATAATTGTGGTCTGAAA AGACCCTAAACTGAAGTTCTGTTTAAATATAGTTACATGAATTTCTCTGATACTAATGTACTCAACAGCCAGGTA TAAACTATATCTCCTAGTAACATTTTCCATTTTTGTTTAATCAAATACTTGCTTATGAAGGATTTCAGAAATTTG GGTGTAATGAGGAAAATACCTGATAAAATGTCTGAAGACACTTTCTAATGTTATCTTGGTGCATAAGCTGTAATT TTTATTCAAAATTAAATTTCAAATGTTTGCAGTTTTGGCTAAAACATTGAGTTGAAAGAATTATGAAAAGTGGGC CCATATGAAGTACCATGTTCATTTTGAAATATAGATTTAAGATTTAGAAATATATTAAAAGAGTTAATGGAGCCT CCTAAATTGGATTTTATTTTGTGGGTGAAGAATTGTAGGAAGATGAATGTGGCCTACAGTTTTAGTAATCTCCTA GTGGAGTTTTTTTAACTTAGTACTTTTTTTTTTTTAAGTTTTTTAATCTATAAAAAATGTGATTTCTATAAACC ATGATTACAATAAATAATTATATTAAAA

### 2057/2682 FIGURE 1863

GRAGGQRALGRGDPERAAGPGRGKARRGLAQVRFSHLAARSGLWGAPVRAPAVAAWEINIKIGSLCLLLDIGNLN VMATEFIKSCCGGCFYGETEKHNFSVERDFKAAVPNSQNATISVPPLTSVSVKPQLGCTEDYLLSKLPSDGKEVP FVVPKFKLSYIQPRTQETPSHLEELEGSARASFGDRKVELSSSSQHGPSYDVYNPFYMYQHISPDLSRRFPPRSE VTRLYGSVCDLRTNKLPGSPGLSKSMFDLTNSSQRFIQRHDSLSSVPSSSSSRKNSQGSNRSLDTITLSGDERDF GRLNVKLFYNSSVEQIWITVLQCRDLSWPSSYGDTPTVSIKGILTLPKPVHFKSSAKEGSNAIEFMETFVFAIKL QNLQTVRLVFKIQTQTPRKKTIGECSMSLRTLSTQEMDYSLDITPPSKISVCHAELELGTCFQAVNSRIQLQILE ARYLPSSSTPLTLSFFVKVGMFSSGELIYKKKTRLLKASNGRVKWGETMIFPLIQSEKEIVFLIKLYSRSSVRRK HFVGQIWISEDSNNIEAVNQWKETVINPEKVVIRWHKLNPS

### 2058/2682 FIGURE 1864

GGGGGCGCGGCCGGTTACTCGCTTACCGGAGGCTTCAGTCCCCGGCGGCGCGCGACAGCTAGGGTTCACGGCCA CTGGGGCAGAGGAGCCGCGAGAAGATGTGGGTTTTTGGTTACGGGTCCCTGATCTGGAAGGTGGATTTCCCCTAT CAGGACAAGCTGGTCGGATACATCACCAACTACAGCAGGCGCTTCTGGCAGGGCAGCACCGCACCGCGGGGTC CCCGGCAAGCCTGGAAGAGTTGTGACTCTTGTTGAAGATCCTGCGGGATGTGTATGGGGTGTTGCTTACAGATTG CCAGTAGGAAAGGAAGAAGTAAAAGCATACCTTGACTTCAGAGAAAAAAGGAGGCTACAGAACCACAACAGTC ATTTTTTATCCAAAAGATCCCACAACAAAACCATTCAGTGTATTGCTATATATTGGAACATGTGATAATCCTGAT TATCTTGGTCCTGCACCTCTGGAAGACATTGCTGAACAAATTTTTAATGCAGCTGGTCCAAGTGGAAGAAATACA GAATATCTTTTTGAACTTGCAAATTCTATTAGGAACCTTGTGCCAGAAGAAGCAGATGAGCATCTTTTCGCTTTG GAAAAATTAGTAAAGGAACGTTTAGAAGGGAAACAGAACCTCAATTGCATATAATTTAGTCTTCAGAGAATTAAC TTCAGTGCACAATGACAATATGATTTGGAAATACGTTTACTTAAAGATCTTATTTTTAATGTAGTGAGGATATTA AAATTTTAATAACATAAAGATTTCCTAACTTTATGTTATTGAACACTTACTCACTAGAAGTGAGTTCTTTAGAAA AATACAGTGAAGGACTCAGTTCAGTCTTGTTTTTATCAGAGTGATAATCATCCTGTTTCACATCCCAATACTATT TTGAAATTCTAAACAATTAAACCAAAATTCCAATAAATATAAGGTTATGCCTTCAATATATTCCTATACAATTCT GTAACCATGGTTTAAAATACACAAGCTTAAAATAACATGCTTAGAAATACACAATAATATGAACAGTATTTCAGC  $\tt CTTAATTGTGAATTTCCTTGTTATTCAAGTATTAAATGAAATCTTTTGAGTTTTTAGCCAAAAATTGGCATTTTT$ **ААААСТАААААААААААААААААААААААААААА** 

## 2059/2682 FIGURE 1865

 ${\tt MWVFGYGSLIWKVDFPYQDKLVGYITNYSRRFWQGSTDHRGVPGKPGRVVTLVEDPAGCVWGVAYRLPVGKEEEV}\\ KAYLDFREKGGYRTTTVIFYPKDPTTKPFSVLLYIGTCDNPDYLGPAPLEDIAEQIFNAAGPSGRNTEYLFELAN\\ SIRNLVPEEADEHLFALEKLVKERLEGKQNLNCI$ 

### 2060/2682 FIGURE 1866

TCAAATCAATCATNGACCCTTTCATGTGAAATCTTTAGTGTTGTGAGCCCGTTAAAAGGGACAGAAATTGTGCAT TGTCTGAGAAGTTTTGTCTGCAGCTCATCCTGCTACAGAATGAACTCCTTGTAATTCTACAAGATATGCCATGGG NNNNNTGCATTCCTGATTTGGCTCTTGGCTTGAATGTTATTAACGCCACATTTTTTAAATAGACAAAAATATGA GATTAAAAATGTTGAATTTTACTAACAATAAAAGTTGTTCAAAGGAAAACTATAAGGTTCTTGTTTCAACTCTGT CATAGGAAGAACAGGACAGTGAGCTGGCACAGAGTTAGGGAAATTGACTGTGTCTCATATTGGCTAGTGAGAGTG GTAAATATACTAAATGTCAGGCCTCTGAGCCCCAAGCTAAGCCATCATATCCCCTGTGACCTGCATGTACATACG TCCAGATGGCCTGAAGCAAGTGAAGAATCACAAAAGAAGTGAAAATGGCCTGTTCCTGCCTTAACTG<mark>ATG</mark>ACATT NNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNTTTACTGCAGAATATTTCCCAAAGTCTCATAAT GATGCAGAAATACATGTGTACAAGACTTGTTCTGACACCTGGCACAGAACTGACAGTAGTGGCTCCCCAGGGAGG CTGGAAGGAGGTGGAGGACGTGACAGGGAAAGGAGATGCTTTATGGACAAGGGCCTAAGCTGCAGCTTTGCTTG  ${\tt GAGCGTTACCACAAAACAAATACATCATGTGATGTT} \underline{{\tt TAA}} {\tt ATATCACAATATATTTAATAATAATTGGTG}$ GGGCTGAGCACGG

# 2061/2682 FIGURE 1867

### 2062/2682 FIGURE 1868A

GAAAGAAATAATAACTTTAATTATAAGACGTATATGATTTTTGCAGTTTTACTTAGTGTGACATTGGGTTTATGA GAATCGTGTACATTCAAGTCCAGGAATAATAATGGTCATCCAAATTGTTTGAAAGGAAAATAATCCCAGTGGCAA AATGATGGTAGAATTTGGGTAATCTTTTTTTTCCTTTTATGAAAAGAGATTTTATTGAAGGTAAAACATTAGAGG TTCATTGAGAATCTCTAAATCCATGTTTTGACATTGTCAAGCTCATTGCAACTTCCAGATTGAGTAACACTTATA ACACATTTCCTTTTCAAAGTGCAAGATTTTTAAAAGAGACTTGTCACATATTCATTTGGCTGGTTTCAAATGGTG AGCTGAATGCTGGGTAATCTCTACTAGCTCCTTAATCAGATTTAAAATTCTCAGTGTTTCCTAGTTGTTTCTGCA TACTTTATGTGAGTTGTTATAGCTGTAACATTACACTTTATTTGCTGTTTTGTGTTTCGTGACTTTTGGTAATTCT GGCATTTAGAAACCTTTCACTTTGCTTCAAAACGTAGTTATATTTTTGGAGTTTTCATTTGATATAAATTATTTA TTTTGCCCTTTTATTTCCCAAAGACATTGTAAGGGTTAATTAGATCATTATATTTTATTACAGATTAAAGTT CATAACTTTACATAAACTAGTCGTTTCGGTCAAATAGAAAAATGTGTGAATGCCATAAAAAACAAAAATTCTCAGT AAGACCCCTGAGTACCATTAATATTCCTCAGAAATTATTATTTCAAAAGGAAATATTTCTGTATTATAAATTTTT CATGAGCAGCCATTATGAAATCTCACAAGAATCATAGAATTCAATAAAAAAGGTAGAAAGTAATTTTTTTACTTA GGTTCTGCTACATCTGTGTTTAGAATATTTTTTTAAAACTAAATAAGTGTTGGCTAGTTTTGCGGTGTAAGCAGA ATTAAGGTTCTGCTACCTCTGTGTTTAGAATATTCCCAATGGATTTTTCATTTTTCAGGTGCTATTTTTTGACCC TGTATCCACTTTAATTTAAACCGAATTTGGTAACGTTTCTCCTCTGTCTCTACATATATTCATGCTTTCACCTGC TCTTTTAACACCTGCTTTTAGTATCTGAGGCACTTTTTCTGAACTCTACTTGTGCACTGGATCCCTCCTTTTC CTNCATTAGCCTAAAAGGAAAGACCAAATAAAACCTTTCCTACCACTTGGATGCATTTGCATCCTGACTTCTGAA ATGCCTCCAGCCTCCATTTTCTCCCTTCCCAGTTATTCCTTAGCCCAGCCATCTCTGTCTTTAGCTCCTACAATT TTCTTAGGATATTCTGGGAAAGATGAGCGGAGACTGCCCGCCTTGTCAAATCTAGTGTCTTTTTTTCAGTCCTCA CACTGCTTGACCTATGTATAACCTCCTATACTTCCCTCTTTGCATACTCCTCTGGGTTTTCTGTGGTAGTCAAGA TTCCTCCCTGAGATTTATTTCCCATGAGTCTTGACCCCTCCCCTCAGTTGGTGCTATTTCCCCCTACCCGCCCTC ATTCTTTTTCTCCATCACACTCATACTTAATCATCAAGTCCTTTTGAGCTTGTCTCCTCTTGAATATGTCCCTTC TTAATTCCTGCTGCCTTCTTAGTAAAGGCCTTCATTCTTTTTTCCCTAGTAATAATCTTTTCCATATGTTCCAGT ATACCTTTAGCATGTTACCCACTCTGCCTCTGCTCTTCTGGAACTAGAACACTCATCCTTGAAGGCTGGGCTTCT GTATGAAGGTTGGTCCTGCCTCCTTACTTGAGGTGAAGCTTTGTACATGCCTGTATTACGGACATCCTCTTATTT AAGTGTTTGTCTCTTTCGTCATTGGGACTCCAGCACCCAGCATAGTCCCTAGTATACTAGTTGGTGCTGAATAAA TAGTAGCTATTATTAGAAAAGGAAGGGTGAAATTGACATGGGAGTTAGTAAAATGTATATGGAAATGATTTTTAA AGGGAAAGGTAATGATTTTCTGGCAGGAAAAGCAGCAATGACAAGATTACTTAAGTCTTGTGAAATAACACTTCT CTTCCTTGACCTGCTTCCCTTTTTTACCANACACACACGCACACATACCACAGCCCTTTGAGACTGAAAGCA GCTCTATTGAGAATAGTAGTGTCAACTGTATTATGTAGAAATTCTAAAGTTTTTGGGATTATTTCATAGCCCTGA TAACCCTCACACACACTCCAGTATTGATGCAGTCAATCTTGTATAACATTTTTTGAATGTCCAATGTGCAAAGC ACGATGTTGGAAATTATACAGAGGTGAATAAGACAAAAACTCTTGCTCTCAAAGATGTCAGTCTTTTTCTTTGCA GTACCTACACCTCTAAATCTATTTTCAATCTTAATGGCCTTTTAAATAACTGGGCTTCTCACAACCATAGTGAAC AGAAACAGCTGGGTTGTCAACGTCTAACCTAATACTTCAGGAAAACTC<u>ATG</u>ATGGTTTCCATGTTAAGAGAGACA

2063/2682 FIGURE 1868B

TGGAGCAGGGCACTGGCATGGTG

2064/2682 FIGURE 1869

MMVSMLRETWSRALA

### 2065/2682 FIGURE 1870

## 2066/2682 FIGURE 1871

 ${\tt MRTIDDRIVHELNTTVPTASFAGKIDASQTCKQLYESLMAAHASRDRVIKNCIAQTSAVVKNLREEREKNLDDLTLLKQLRKEQTKLKWMQSELNVEEVVNDRSWKVFNERCRIHFKPPKNE}$ 

### 2067/2682 FIGURE 1872

 ${\tt TGCCTCAGGATCAACAGTGGTTAGCCAAAATGGTCCAGTATAATACACCATATATGCTTATG} {\color{red}{\textbf{TGA}}} {\tt TTCCCTTGCT}$ ATCAAGGCCATTTCAACATGGTTGCCTGGAATTCTCCAAAAAACCTGTGGGTTGTGGGTTTGGCATGTCAAGCTT CAGACCACAAGGTCTTAAGTGGTAAATAGATGCGTTGTCCTAATACTGTTCCAAGGTAGAGAATCCTGATGATAA GGAGTATAGGAAACTCAAATAGTTCATTATTTCTAAAAAATGTATATTTTAAGGCATGATACAAGTCCTACAAAC CTCATAAGTAGGTGAAAAAAAAAACCCTGTGGAGTGATAAACATTCTATAAAACCTGGAAATTTGTGTGGAGTTC GCCTAAGCTCACTTTTCCTAAATATAGCTATATAATATTGTAAACAAATTTGTTTTTTAGAAACTTTTAAGAAGA TTTCTGTGAGCGTAATTGACAATATCTGCATTAGAAACAGAAAGTATTATCCATCATAAATATGAGAAAAGTGTG TGTCCTCTTTCTGACAATCTTTTTTATCTTATTTTTTTCAAACGTTGTGGTTGTTTCAGCACCATTTTAAAGA ATTTGAATACAAACAATCCCTCAGCTTATCAGGTTGACATTTATGAAGCTGACCTCATCACTCTTTATCTTTTAT GTCTGCAGTATAAATAGCATAGACATTTGGTGTGAAGGGAGGAGAAAGGAAGTAGTAGTTCTGAGAATATTCATT TGAACAGCGTGACTATGGAAGAATGAATAGCAAAAAAAGGAGAATTTTTTTAAAAAGATCTCTCACTGGGAAAAG AAAAAGTTATGCATTTATAAAGTAATTAAACTGGTTTTCCTTGTACTTTATTAATCTGAATCTAATGGCACTTCC GGAGATGACTTTGGAAGAAACCCATTTGGAACTACACCCCTGCTATGTCTGTGGAGAAATGGAACTGCAATCCT CAAGAGTCACACTTCATATTCCTTCCTTTCAAGTGGTTGATAAAAGGTAGTGCTTCAAGCACAGGATTTATGGAA TGTGAATCTCTAATGTGGTGAGAGAGAAAAACATAAAAAATATAAAAAACATTCAAGCAATCG

2068/2682 FIGURE 1873

PQDQQWLAKMVQYNTPYMLM

### 2069/2682 FIGURE 1874

 ${\tt TGGCAGTGATGTCATTCCTTACTAGGCTTCCAAAGCCACTGCTGTGGCCACAGCTTCCATGGAGACAGGCAAGC\underline{T}}$ <u>GAGCCTCTATGTGGCACCAATTCCTGCAGCTGTTTGTGTTGGAGGGAAAAAAATCCAAATGGACATCAACAGCTT</u> TCATCAACTAAATAACCACAGAAAATATTTATGAAGACTATAAAGCAATGATTACTTTTGAATTGGAAAGGAATC ACTATTATTTGAAATGTTTCTTCAAAAGTGAGCATCCGGACAGGAACCATCATGGATGCTGAGGCCATGGATGAA GGCCTACTCGGGAAGATGATATCCTTGCAGTCTCAAAACGGCACCCCACAAAGGTGATATCCTAATTTACAAAGG GAAAAAGGTACCTTAATCTGAAATCTGGCAAATGCAGCCTCAACAGAAGTGACAGAATTGAACATCGCCAATAAT GGGACACACAGACATCACATGCCCCCAGTCTGATGCACCACGGAGTCGTCTCTGATGTATTCTTGTCAAAAAATG TTTGCCTGATTCTAATCATGAAAGAACAATTAGAAAAAATCCAAATTGACAGATATTCTGCAGAATAAATGGCCT GACCTCATCAAAAACATCAATGTCATGAAAAAACACAAAACATTGCAGATAGCGTGAAATTAAAGATTACAGAGAT ATAACTTAATGCAAGATCTCTGACTGGATCCTAGACTGCAGGAAAAAGTCTGCTATAAAGAACATTTGGATCACT TGTAGTAGCTGGGAAATAAAACAAAACATTATTTGTAAAAGGGGGGAAATCTGAACATGGGTCTTGCAGTATTTA GTTTGCATTGTTTCTGTCTGAGTTAAGAGACTGGCAGAACACAGAGTTGCAGTAGCCAAACACTGGAGAAAAGCTG CCCTTTTCAAATAATGATCATACATCTTCAAGCTGTCTGAAATGGTTAAGGAGTTCAGTCTGTCGTCAGGCACAC ACCAGAGCCAGCTAGCCCACAGAGCCCATCAGAGCAAAACAGACAAGAGAATTTAATTCATATCCACATAGAA AGGACTTCTAGGTAGGAGGTAGACCCTTTAGCTCCCTTCCAATTAAAGGAGTCCCCAATTCTGGCACCTGAGAGT TGACACTGATATTAAAGTGCTAATGAGAGGGATCTATTTCTTCTTGTACGCTAAAAGAGAAACAGTAGTTCAGAT TTCCCATCAGAAGTCCGAGGACTTTGTTCTTGATAACTACTACCAATAAAAATTGAGTATTTGAAAAAATTCCTTT GTATTTTCCATCCATACACATTTTTTTTTAAAGCATTTTAGGAAGTCCTCTAATTATAGTAAAAATTGTCAGC AATGGCCTGCTAGTTTTCTATTTGACCTAATCACAACCATCCTCGTTAGGTCCTGAGGTCTGCTCTGCTTGG CCAAAACCAAATGGTGCCAGGTCACAAAGCACTTGCACATGTGAATCCTGCATCCATTCTACAATGGGTCACTAT AATACCCTTTGGAGCTGTTGCCTATGTCTGTGGATAGGCTCTTTGTAGCTAGGTTAGGCTTCTGTGTTAAAGTGT GTTAGAAGAAAGCATCACATAAGGAAAATAGAACTCTATTCGTATGTTTTTTCAAAACAGAAGTCAAGTCACATT CAGGCAAACCAAATCTGTAACATTCAAGAAGATGCAGTGACTCTTCCGCATCTTAGAGCCACGGTGTCTGAGGTG GCTGGCATGGCTCCAACACGCTGGCTTCCCTGTCAGTGGATCATTTACAATATGGTGCATTTCAAATTACTGGTG AAAGCAAAAATGACAGAAATAACTCAAAAGTTCCTAAAATTTATGTGTATCTTTTCGTACCTGTGAACTCCTGAA TAAGTATTTATATCTGACAGGTACAAATACAATAATTATATTTTTAAGTAAAACCTATTTAATAATATGAAGTAT GGTGTTAAATACATGTATTAAAAGATAAGTAACTTCAGAAGTCTTCTGACTTTTTAATTGTAAAATAAGTGAAAA 

2070/2682. FIGURE 1875

AVMSFLTRLPKPLLWPQLPWRQAS

### 2071/2682 FIGURE 1876

## 2072/2682 FIGURE 1877

MVDMFVLLLPPAGGDELQGIKRGIIEMADLVAVTKSDGDLIVPARRIQAEYVSALKLLRKRSQVWKPKVIRISAR SGEGISEMWDKMKDFQDLMLASGELTAKRRKQQKVWMWNLIQESVLEHFRTHPTVREQIPLLEQKVLIGALSPGL AADFLLKAFKSRD PCT/US2003/034381

## 2073/2682 FIGURE 1878

WO 2004/039956

AAAGGAAAACTGTAACTTCTTTAATAATACATTATTCAAATTCAAAGATGATAGCACATTTTGAGATTCAGATTG
GTAATGTATCTTTGATTACACTTTGCAAATGTATTTGACAATTAACCATATACTACTACTTTTTATTACTGAGGT
AGGAGGCAGGACTAGACTCTGGAGGTGGGGATTGGGCTCCAGACCACACTGAAGACAAGCTGAAAGGGAAGAGGT
GAAAGAGTCTCTCCATAAAACACACTCACCAGTGCCACGTCAGGTTACCATTGCTAAGGCAACAGCTGGAAGTTT
TGGCTCCTTTCCATAGCAACAATCCCACGAXCCTGAAGTTACGACCTTTTTTCTAGAAATTTTGGCATAATCCAC
CCCTAAATTTGCATATAGTTTAAAGTGGGTATTAATGTGATTGCAGTACTGCTTCCGAGCTGCTACTCTGGGCAC
ACTGCCTATTGGGAGCC

### 2074/2682 FIGURE 1879

TGAAGTAGAATTTTATTACAGAATTTCACAAAGAACTTAATATCTAAGTGTAAAGATAGAAAGCATTGAAATTCA ACTTCGTTTTCCTTTCAAAGAAGGAAAATAAGGACTGTGCATATCGAAAATCAGCGTTTCTAGGAAGTTG AAAGTTTGGGACAGTCTTCTTGGACACTCAATCCTAAATACATGAAAGGCAGCTACTAGCGCAGCCAAGGCTGTA ACACAGTCGTCCACCTTTGTGAGCCTCTCCCTTTCTAAATATAAAGAAAATTCGCAGACCTCCATGTTGAAAGGG AAAACATCTGGGAGGAGTAAACATGTGGCTGTCATCTTCATGTATTTCAACATGTCTTCATCTGTGTAATGTTTC ATTTTTTTTTTGCAATACAATATTGATTGGATTGTCCACCACTGAAAAAGAAGTCAGTATATTTTCTGAATAGGAT TCCAAAATGTGCCTTGTTTTCTTATAAATATCTGTTCTTGTAAGAAGTTGGAATTCTCTGAACATCTGATAAGGG AAAGTTTGGCTCATTCTCTTGTCAATTTCTCTCCAGTCCTTTTCTGTTTTCACGTATTCTTGCTGGAACCACTTA ATATGTTCATCTAGCTCAGAATCAAAACAAACAGCTTCTTCTTTTATCTGGACAAGTTTAATTTCATCAAATCTT ATATCAGCAAGAGATTTCCTTGTCTGGCCTCTTCGGTGTCCAAATTTACACTTATTTCTAATCACTTGCTCATCA TCTTCTATGGGTCTTCGAACATATTTAAAGCGATCTTTGAGGGCTCGTTTCCATAAAAAGAAGCCACAGCCATCC TCATCCAGGAAAGGGTGGGCCTGCAGCAGGGCATTAACCACGTCATTGTACTGCTGGGTGCTGGGGTACAGTGAG CCTTCCAGATACTTAGTCATGTCGGCCTGGAGAAACTCAATGATCC

### 2075/2682 FIGURE 1880

# 2076/2682 FIGURE 1881

MSSGQVTPDPLSSGFLLCETIKCLVFEK

## 2077/2682 FIGURE 1882

# 2078/2682 FIGURE 1883

#### 2079/2682 FIGURE 1884

GGAAACTGAAAACACACCTGCAGCATCTCCGGTGGAAAGGAGCGAAGAACACGGACTGGGAGCACAAAGAGAAGT GCTGTGCGCGCTGCCAGCAGGTGCTGGGGTTCCTGCTGCACCGGGGCGCCGTGTGCCGGGGCTGCAGCCACCGCG TGTGTGCCCAGTGCCGAGTGTTCCTGAGGGGGACCCATGCCTGGAAGTGCACGGTGTGCTTCGAGGACAGGAATG  ${\tt TCAAAATAAAAACTGGAGAATGGTTCT} \underline{{\tt ATG}} {\tt AGGAACGAGCCAAGAAATTTCCAACTGGAGAAGGTCAGTGCACCA}$ GATATTCTGAAACCTCTCAATCAAGAGGATCCCAAATGCTCTACTAACCCTATTTTGAAGCAACAGAATCTCCCA TCCAGTCCGGCACCCAGTACCATATTCTCTGGAGGTTTTAGACACGGAAGTTTAATTAGCATTGACAGCACCTGT TATGTGAAGACCTACCTGTTGCCCGACAGATCCTCCCAGGGAAAGCGCAAGACTGGAGTCCAAAGGAACACCGTG GACCCGACCTTTCAGGAGACCTTGAAGTATCAGGTGGCCCCTGCCCAGCTGGTGACCCGGCAGCTGCAGGTCTCG GTGTGGCATCTGGGCACGCTGGCCCGGAGAGTGTTTCTTGGAGAAGTGATCATTCCTCTGGCCACGTGGGACTTT GAAGACAGCACAACACGTCCTTCCGCTGGCATCCGCTCCGGGCCAAGGCGGAGAAATACGAAGACAGCGTTCCT CAGAGTAATGGAGAGCTCACAGTCCGGGCTAAGCTGGTTCTCCCTTCACGGCCCAGAAAACTCCAAGAGGCTCAA CCAGATGGCACCTTGAACTCATTTGTTAAGGGCTGTCTCACTCTGCCAGACCAACAAAAACTGAGACTGAAGTCG CCAGTCCTGAGGAAGCAGGCTTGCCCCCAGTGGAAACACTCATTTGTCTTCAGTGGCGTAACCCCAGCTCAGCTG  $\tt CTTTCCAGCCCCAATCTATGGACAGACATGACTCTTGTCCTGCAC\underline{\textbf{TGA}} CATGAAGGCCTCAAGGTTCCAGGTTGC$ AGCAGGCGTGAGGCACTGTGCGTCTGCAGAGGGGCTACGAACCAGGTGCAGGGTCCCAGCTGGAGACCCCTTTGA CCTTGAGCAGTCTCCATCTGCGGCCCTGTCCCATGGCTTAACCGCCTATTGGTATCTGTGTATATTTACGTTAAA CACAATTATGTTACCTAAGCCTCTGGTGGGTTATCTCCTCTTTGAGATGTAGAAAATGGCCAGATTTTAATAAAC GTTGTTACCCATGTCAAAAAGGAGATAACCCACCAGAGGCTTAGGTAACATAATTGTGTTTAACGTAAATATACA CAGATACCAATAGGCGGTTAAGCCATGGGACAGGGCCGCAGATGGAGACTGCTCAAGGTCAAAGGGGTCTCCAGC TGGGACCCTGCACCTGGTTCGTAGCCCCTCTGCAGACGCACAGTGCCTCACGCCTGCTGCAACCTGGAACCTTGA **GGCCTTCATGTCAATGCA** 

## 2080/2682 FIGURE 1885

MRNEPRNFQLEKVSAPDILKPLNQEDPKCSTNPILKQQNLPSSPAPSTIFSGGFRHGSLISIDSTCTEMGNFDNA
NVTGEIEFAIHYCFKTHSLEICIKACKNLAYGEEKKKKCNPYVKTYLLPDRSSQGKRKTGVQRNTVDPTFQETLK
YQVAPAQLVTRQLQVSVWHLGTLARRVFLGEVIIPLATWDFEDSTTQSFRWHPLRAKAEKYEDSVPQSNGELTVR
AKLVLPSRPRKLQEAQEGTDQPSLHGQLCLVVLGAKNLPVRPDGTLNSFVKGCLTLPDQQKLRLKSPVLRKQACP
QWKHSFVFSGVTPAQLRQSSLELTVWDQALFGMNDRLLGGTRLGSKGDTAVGGDACSQSKLQWQKVLSSPNLWTD
MTLVLH

### 2081/2682 FIGURE 1886A

GAACCCAGCGGGAGAACATTTCAGGATAGGAATAGGCCAAGTGCTGAGAAGATGAGTCTTAGGATTGATGTGGAT ACAAACTTTCCTGAGTGTGTTGTAGATGCAGGAAAAGTCACCCTTGGGACTCAGCAGAGGCAGGAGATGGACCCT CGCCTGCGGGAGAACAGAATGAAATCATCCTGCGAGCAGTATGTGCTCTGCTGAATTCTGGTGGGGGCATAATC AAGGCTGAGATTGAGAACAAAGGCTACAATTATGAACGTCATGGAGTAGGATTGGATGTGCCTCCAATTTTCAGA AGCCATTTAGATAAGATGCAGAAGGAAAACCACTTTTTGATTTTTGTGAAATCATGGAACACAGAGGCTGGTGTG  $\tt CTGGCATTCCTCAAATGCAGGACTCAGACTCCAACGAATATTAATGTTTCCAATTCATTAGGTCCACAGGCAGCT$ CAGGGTAGTGTACAATATGAAGGTAACATAAATGTGTCAGCTGCTGCTTTATTTGATAGAAAGCGGCTTCAGTAT CTGGAAAAACTCAACCTTCCTGAGTCCACACATGTTGAATTTGTAATGTTCTCGACAGACGTGTCACACTGTGTT AAAGACAGACTTCCGAAGTGTGTTTCTGCATTTGCAAATACTGAAGGAGGATATGTATTTTTTGGTGTGCATGAT GAGACTTGTCAAGTGATTGGATGTGAAAAAAGAGAAAATAGACCTTACGAGCTTGAGGGCTTCTATTGATGGCTGT ATTAAGAAGCTACCTGTCCATCATTTCTGCACACAGAGGCCTGAGATAAAATATGTCCTTAACTTCCTTGAAGTG CATGATAAGGGGGCCCTCCGTGGATATGTCTGTGCAATCAAGGTGGAGAAATTCTGCTGTGCGGTGTTTGCCAAA GTGCCTAGTTCCTGGCAGGTGAAGGACAACCGTGTGAGACAATTGCCCCACAAGAGAATGGACTGCTTGGATGATG GAAGCTGACCCAGACCTTTCCAGGTGTCCTGAGATGGTTCTCCAGTTGAGTTTGTCATCTGCCACGCCCCGCAGC AAGCCTGTGTGCATTCATAAGAATTCGGAATGTCTGAAAGAGCAGCAGAAACGCTACTTTCCAGTATTTTCAGAC AGAGTGGTATATACTCCAGAAAGCCTCTACAAGGAACTCTTCTCACAACATAAAGGACTCAGAGACTTAATAAAT ACAGAAATGCGCCCTTTCTCTCAAGGAATATTGATTTTTTCTCAAAGCTGGGCTGTGGATTTAGGTCTGCAAGAG AAGCAGGGAGTCATCTGTGATGCTCTTCTAATTTCCCAGAACAACACCCCTATTCTCTACACCATCTTCAGCAAG TGGGATGCGGGGTGCAAGGGCTATTCTATGATAGTTGCCTATTCTTTGAAGCAGAAGCTGGTGAACAAAGGCGGC TACACTGGGAGGTTATGCATCACCCCCTTGGTCTGTGTGCTGAATTCTGATAGAAAAGCACAGAGCGTTTACAGT TCGTATTTACAAATTTACCCTGAATCCTATAACTTCATGACCCCCCAGCACATGGAAGCCCTGTTACAGTCCCTC GTGATAGTCTTGCTTGGGTTCAAATCCTTCTTAAGTGAAGAGCTGGGCTCTGAGGTTTTGAACCTACTGACAAAT AAGACTATCTTGGCTCTTAGGATCATGGAGAAGATCAGGAATGTGTTTCACTGTGAACCGGCTAACATTCTCTAC ACCTTCATGAAAAACAACTTTGAACACATCCAGCACATTATCATTGATGACGCTCAGAATTTCCGTACTGAAGAT GGGGACTGGTATGGGAAAGCAAAGTTCATCACTCAGACAGCAAGGGATGGCCCAGGAGTTCTCTGGATCTTTCTG AACAGAGTGGTCCGCAATGCAGGTCCAATAGCTAATTACCTACAACAAGTAATGCAGGAAGCCCGACAAAATCCT CCACCTAACCTCCCCCTGGGTCCCTGGTGATGCTCTATGAACCTAAATGGGCTCAAGGGTGTCCCAGGCAACTT  $\mathtt{AGAGATTAT}$   $\mathtt{TGA}$   $\mathtt{AGACTTGAACTTGGAGGAGATACTGATCTATGTAGCGAATAAATGCCGTTTTCTCTTGCGGAA$ TGGTTATTCTCTGAAGGATATTGCTGTGCTTTTCACCAAAGCAAGTGAAGTGGAAAAATATAAAGACAGGCTTCT AACAGCAATGAGGAAGAGAAAACTGTCTCAGCTCCATGAGGAGTCTGATCTGTTACTACAGATCGGTGATGCGTC AATCAATCCAGGAGTAGCCCCACCGGCTGGGGCCTACAATCTTCTGCTCTGTTTGGCTTCTAGGGCAAAAAGACA TCTGTATATTCTGAAGGCTTCTGTGTGACAGGAAACCCAAGCCTAAGAAACAATTAAGTGGTTCTCATCTCTAAT NNNNNNNNNNNNNNNNNNNNNTGTCCGNGNGNGNGNACGTGCACATGTGTGAGGTAGATGGAGGGGGGTGATT ATTTTGGGTGGTCAGGGAAGTGCTCAGTGAGGGAAGAACTTGTCATGAGAATCTCTGAGCGTGCCAGGCAGACTC GGATATTTTTATAAATTTTTAACATGGCCACTTGCAGAAGAGCTTGAATGGGACGTGCAGGGAGAATGGGAAGGA TGGAGCAGGTAGCTCATCTGGCCTTGTAGGTGCCGGGAACGGGCAAGACATGTTTTGAAATGTAAGATCACAGAC TGTTTTTTGCAAGACCACATTATATTACTTTATTATTTTCTGCTTTTTCTTTTAACGACATTAGTGTTTTTGATC ACTATATTTTAAAATGCTTTTTGTGAGCCTTTTGGTTATGTGGAATCTGTTCCTTAGCTCTGATTTTTTATTCTT ATGGAGCGTCTTAGGTTACTACATGAAGGTAAGACTGCCACAGTCCCCCAGGGAGGCACACTGTGTTTTACTGAT

## 2082/2682 FIGURE 1886B

### 2083/2682 FIGURE 1887

QLRLGTRLGVGGSVACSRRETRCRGEPSGRTFQDRNRPSAEKMSLRIDVDTNFPECVVDAGKVTLGTQQRQEMDP
RLREKQNEIILRAVCALLNSGGGIIKAEIENKGYNYERHGVGLDVPPIFRSHLDKMQKENHFLIFVKSWNTEAGV
PLATLCSNLYHRERTSTDVMDSQEALAFLKCRTQTPTNINVSNSLGPQAAQGSVQYEGNINVSAAALFDRKRLQY
LEKLNLPESTHVEFVMFSTDVSHCVKDRLPKCVSAFANTEGGYVFFGVHDETCQVIGCEKEKIDLTSLRASIDGC
IKKLPVHHFCTQRPEIKYVLNFLEVHDKGALRGYVCAIKVEKFCCAVFAKVPSSWQVKDNRVRQLPTREWTAWMM
EADPDLSRCPEMVLQLSLSSATPRSKPVCIHKNSECLKEQQKRYFPVFSDRVVYTPESLYKELFSQHKGLRDLIN
TEMRPFSQGILIFSQSWAVDLGLQEKQGVICDALLISQNNTPILYTIFSKWDAGCKGYSMIVAYSLKQKLVNKGG
YTGRLCITPLVCVLNSDRKAQSVYSSYLQIYPESYNFMTPQHMEALLQSLVIVLLGFKSFLSEELGSEVLNLLTN
KQYELLSKNLRKTRELFVHGLPGSGKTILALRIMEKLRNVFHCEPANILYICENQPLKKLVSFSKKNICQPVTRK
TFMKNNFEHIQHIIIDDAQNFRTEDGDWYGKAKFITQTARDGPGVLWIFLDYFQTYHLSCSGLPPPSDQYPREEI
NRVVRNAGPIANYLQQVMQEARQNPPPNLPPGSLVMLYEPKWAQGCPRQLRDY

#### 2084/2682 FIGURE 1888

# 2085/2682 FIGURE 1889

VLXTALLIVLTYPAWTFIDCLDSASPLFPVCVIVVPFFLCYNYPVSDYYSPTRADTTTILAAGAGVTIGFWINHF FQLVSKPAESLPVIQNIPPLTTYMLVLGLTKFAVGIVLILLVRQLVQNLSLQVLYSWFKVVTRNKEARRRLEIEV PYKFVTYTSVGICATTFVPMLHRFLGLX

### 2086/2682 FIGURE 1890

2087/2682 FIGURE 1891

TADLEGVMHMGL

#### 2088/2682 FIGURE 1892

AGCTGCAGCCACCCGCGTGCGGCACGCCGGCCGCCTGCCCGGATCGCGGCCACCAGTGCCGCGGCCTCTCGAC CATTTTCTGTTCCGTTTTGTCCTTTTTAAGGCGGTGGCGGCGGCGACAGCGGCGTAAGCTCGCAGCGGGAGGGG GCGGCCGGAGGATGCGGCGCGGGGCTGCGCTCGCTACGTCCGCTGCTGCCCGGCTCGGGCCTGAGCGCCCGAG CAGGATCCCAAGTGATGGTGGTTTCCTCGGAGGGCGAGCTGAGTCCTGCGCGACTGGTTAGCACGGTGGAGCTGG TAGCCACGCCTGCTGGCTGGCGTGCGTGAACAGGTGTGGACCGCAGGATCTCAGCACTCTGACCCAAGGGGAAGC CTGCGGGCCAAGCTGACCAGCATTCAGATCGAGTTCCAGCAGGAAAAAAGCAAGGTGGGCAAACTGCGCGAGCGG CTGCAGGAGGCGAAGCTGGAGCGGGCAGGAGCAGCGACGGCCACACGGCCTACATTTCGGAGCTCAAGGCCAAG CTGCATGAGGAGAAGACCAAGGAGCTGCAGGCGCTGCGCGAGGGGCTCATCCGGCAGCACGAGCAGGAGGCGGCG CGCACCGCCAAGATCAAGGAGGGGGGGGCTGCAGCGGCTGCAGGCCACGCTGAACGTGCTGCGCGACGGCGCGCC GACAAGGTCAAGACGGCGCTGCTGACCGAGGCGCGCGAGGAGGCGCCAGGGCCTTCGATGGAGAGCGCCTGCGG GACAAGACCAAGGCAGCCGACCTGCGTGCCGCCTACCAGGCGCACCAAGACGAGGTGCACCGCATCAAGCGCGAG TGCGAGCGCGACATCCGCAGGCTGATGGATGAGATCAAAGGGAAAGACCGTGTGATTCTGGCCTTGGAGAAGGAA CTTGGCGTGCAGGCTGGGCAGACCCAGAAGCTGCTTCTGCAGAAAGAGGCTTTGGATGAGCAGCTGGTTCAGGTC GGCGTCCAGGATCAACATATGGACGAGCGAGATGTGAGGCGATTTCAACTAAAAATTGCTGAACTGAATTCAGTG ATACGGAAGCTGGAAGACAGAAATACGCTGTTGGCAGATGAGAGGAATGAACTGCTGAAACGCTCACGAGAGACC GAGGTTCAGCTGAAGCCCCTGGTGGAGAAGAACAAGCGGATGAACAAGAAGAATGAGGATCTGTTGCAGAGTATC TCTCTGAAGCGGCATACCTCCTTGAATGACCTCAGCCTGACGAGGGATGAGCAGGAGATCGAGTTCCTGAGGCTG CAGGTGCTGGAGCAGCACGTCATTGACGACCTCTCACTGGAGAGAACGGCTGTTGCGCTCCAAAAGGCAT CGAGGGAAAAGTCTGAAACCGCCCAAGAAGCATGTTGTGGAGACATTTTTTGGATTTGATGAGGAGTCTGTGGAC GACGATGCCACAGCCCGAGAGGAGGCTGACCTGCGCTTCTGCCAGCTGACCCGGGAGTACCAGGCCCTGCAACGC AAGTGGGTTGAAGAGAAGCAGCTGCTCATCAGAACAAACCAAGACTTGCTGGAAAAGATTTACAGACTGGAAAATG GAAGAGAACCAGCTGAAGAATGAAATGCAAGACGCCAAGGATCAGAACGAGCTGTTAGAATTCAGAGTGCTAGAA CTCGAAGTAAGAGACTCTATCTGTTGTAAACTCTCAAACGGAGCAGACATTCTCTTTGAACCCAAACTGAAATTC TTTTTTTAAATCTGTATGTTCAGAATAATTTCACTGCCTTAATGTGTTCTGGAGAGCGTGCTCACCCAAGTCTAT GGACATGTACCAGAGCTAATATATTTATTGCCTATGGCTTGTTTTGCACTTAATAAAATAATTTGTTTTTGC

# 2089/2682 FIGURE 1893

MSKKGRSKGEKPEMETDAVQMANEELRAKLTSIQIEFQQEKSKVGKLRERLQEAKLEREQEQRRHTAYISELKAK LHEEKTKELQALREGLIRQHEQEAARTAKIKEGELQRLQATLNVLRDGAADKVKTALLTEAREEARRAFDGERLR LQQEILELKAARKQAEEALSNCMQADKTKAADLRAAYQAHQDEVHRIKRECERDIRRLMDEIKGKDRVILALEKE LGVQAGQTQKLLLQKEALDEQLVQVKEAERHHSSPKRELPPGIGDMVELMGVQDQHMDERDVRRFQLKIAELNSV IRKLEDRNTLLADERNELLKRSRETEVQLKPLVEKNKRMNKKNEDLLQSIQRMEEKIKNLTRENVEMKEKLSAQA SLKRHTSLNDLSLTRDEQEIEFLRLQVLEQQHVIDDLSLERERLLRSKRHRGKSLKPPKKHVVETFFGFDEESVD SETLSETSYNTDRTDRTPATPEEDLDDATAREEADLRFCQLTREYQALQRAYALLQEQVGGTLDAEREARTREQL QADLLRCQAKIEDLEKLLVEKGQDSKWVEEKQLLIRTNQDLLEKIYRLEMEENQLKNEMQDAKDQNELLEFRVLE LEVRDSICCKLSNGADILFEPKLKFM

#### 2090/2682 FIGURE 1894

GTCATGTAATACATGGCTCTGTCAG**TAG**CTCTCCTTCCCACAAATAAGTTTTGATGATCTTACACTCATCCCTGC CGTTAGCATTCAGGACCAATCTTCTATAGCCTATACGCCACACTGGTCTAGGACAGCACCTAAATAATACTCATG CTATAAAAAATTCATCAAGTTATATATTTTTAAAAACATCCCTAAAATTATCTTTTTCCTTTACTGAAAAGAATT TCAGGATCCCCTCTCTCACTGCCTCTCTCACACACACCCTACCTTAGTTGGTCACCTATTTTGTAAACATATC AGCATTTTTTTCCCCTTGAGGTTAATTTCCTTTGCTTCCCATAACTGGAAGCCAATGATTCAGTGCCATTATATA AGCTTATTTTCCCTCTTGGAAATAGTAAATTATAAGAGGTTTGACCCAAAAATATACATCAAAATTAGGCAGTAT TCGGTGTTTAGCCTCCATCTGCCTTGTCTTCTTGTCTTTAGTTGTGCAAGTAGATGCTGATGATTTCTGGCAGAG CTAAAGTAAGTAAATCATGTGAATTTATTTTTTTCCTCATAAAACAGATGGCATGGTCTAGCTCTGGGCTTGTA TGTTTCATGAAGTACATGGGTCTGAGTGCGTATTTATTTTGTGAGCCAAGGTTTATGCCTTCTTCTATAATTTTC TTTCACCGAAAATTACCTGGAGAGCTAGAAACTCCATTTGTGTCAGCGTAAGAAGCTTTAGAATCTATATCCAGA  ${\tt CCAAGGCCATGGAACAATGTAGATTCACTCAGTAAAAACTCACTAGCGGCCTTCTTTGTACTAGTCTGTCACCTT}$ GGCAAGGATGTAATTTTAAAAATTTAAGTGGGGAATGGTGAAGCATGAATCAAAACAGAAGGTAGTCTTACCTT CTTGGAACTGTAAAATAAATACATTTGAAAAAGGCACCCTCTCAACCTTCTGCGAGTCAGAATTTTTGCTGCCAC ATTCATTGGAAATTAAAATTAACTTGCGTATTTTGTATTCTTTGGAATGTGAAGACTGATTTGAAAGGGCAG TGCTGGATTTGGTCAGGCATAGGAAAGGAAGACATGCAGTCGTCCTGCCTAGCTCATCCCCGCCACGATGGAGAA GTGGGGTTGCTTTCGTTGTACTTTTTTCATTTGTTTCTTGCCAAGCCCAGTGGCTTCTGTTATAACATGTGGCA GCTTCTCCCTTGGAGACTGATTCAGTCCAAGTTACCATAATATTTTAGGACCAGCTACAGAGACGTTTCTTCCCCT AAACCCATGCCAAATCTAAATCAAACTATCTTCTTCTTCTTCTTAGCCGTTCAAATAGCTCCAGCTCTTATATAAAAA GTTGCTTTGAGCTTGATCACTTCCTCCTAAAGCAGTCTTACGCTGTGTTGATTTTAAGAATTGCAACTTAGGTGT TCAACAGGTGTGGCGCTGAGCTTCTGGGCCTCAGAAGCCCTGACTTCTAGAGGCTGGGGGCCAGCGGGGCAGGGA GGTGATCTCATCATGGATGGCCACAGATCATCCACCTGCCAAACAGTTAACCCTGAACAAGTCATGTCAATTTAT GTAAATACCCTGGTCATTTCCCCCTTGGCATTTGATACACATAGTATAGACATATTTTAGTCATCCTTGCTCAAG TAATTATATCCATAACCAACTTTATTAGCATAAATTAACTTCCTCATATTTTTAGCAAGAGTTACTTTCCTTCA TTGCTTAGCTTATTGTTTTGAAATATGAATTACTTCAGCACAGTTCATTTTT

2091/2682 FIGURE 1895

FRLKTATPCLPSSYALRQAYQPRLESCNTWLCQ

# 2092/2682 FIGURE 1896

 $\texttt{CGT} \underline{\textbf{ATG}} \texttt{AGCGGGGGGGGGGGGGGTGCTATGAGCCCGGCCGGAGTCGCCCGGGACCTGCCACCCGGATCCCA}$  $\texttt{CCTTCCAGGAGGACGTCACCCAGACGCTCGCAACTCCGGTCTCT} \underline{\textbf{TGA}} \texttt{CAGCGCAGCCTTCCACAGGCTCGA}$ ATTTTTAAGACTTGACATAAAGTCTCCGGAATTCCAGATTATTAAAGTGACCCCCTCATTTCAACCCGGCAAAAC TTCTCACCCCAGTGTCATAAGATTCGATAGCGATCTCCCAGAAACTTGGACTGGAATGCTCCTACACTGAGGGGA TGGGGGGAAGAAATGCTAAAGATTATTTCAGAGTTACAGAAATCCTGTTGAAATTCCAATGCATCGTTTACT CTTAGCGCTGGGGCTTCACAGTTTTTTTTTAAGTTGGAAATATTTACAAAATTTCCCATAGGGTGAAATCCAGAG TTAATCCAAAACCAGAATCTTTTAAAATTAAGTACATTCAAATGTGCAGATTTCTTAAACCTCATTTAGTTGAGC TTTGATAGGTGAAACGCACGTTTTGAACAACTCTGGTAACAAAGAAAAACATTAAATTGATTATAGGTATGTTAT ATTTAAAGACCAGTTGTGAAATTAGCTATATTGTGCTCAAAGTATGTTACTGACATTTCTCCGTCGTTAAAAGGA ACTGCTCCATTCTAGTTTTTTATAATAGTCTGTATTATGTATATAGCCTGATAGTGCTGAATTTCTGAATTGACC TTCATCTTATTTACTCAATAATATTCATTTGACAAATACTTATTAAGTGCATATATGTGTCAGGAACTGTACTAG ATGCTGAGGATATAGCAGTAAGCGCAACAGACCAAGCTAACAGCTTAGTAAAAGGGTGAGGTAAAACAAAACAAAA CCATGTATAATTCATTTCCGTGCATTTTCTTGTGTGAAGAAAGCTCAGTAAAAGTATTTCTTAGGTTTCTGTAAT  ${\tt TCTAGTTCTCTACTCGATTTTCTTGCAATTTTCTGAGCCAGAACCCTTCTTAGAAGGCATATTAGAGACTTTA}$ AAAGTTAAATAATAAATAAATCTCTTCTTTAAACAGC

# 2093/2682 FIGURE 1897

MSGAGATAMSPAGVAAQGPATRIPPSRRTDVTQTLATPVS

#### 2094/2682 FIGURE 1898A

GGGGGGCTCGTGCGTTCTGCGCCCGCCGCGGCGGTGCCGAGCCCGCTGGCTCCCGATTGTCCTCTGCGGCGGTG GCGGTCGCTGCCTCCTTGCCTCCGGGCCCGGGGCTGCAGGGGCCAGAGCGAGTGCGCCTCCTGCCCGCGGACCGC GGCAGCCCAGAGCAGAAACGGCTTACAAAATATACAGATCTTGGTAGACAACGTGGCTGCAGGCTGTTGAATTGG AATTCCCTGTGGCTGTCCGAAGGCAGGGTGTCCGGAGAGCGGTGGGCTGACCTGTTCCTACACCTTGCATC<u>ATG</u>C CAGCTTTGTCAACGGGATCTGGGAGTGACACTGGTCTGTATGAGCTGTTGGCTGCTCTGCCAGCCCAGCTGCAGC AGATTCATGAAAAACTACACTACTATGAGAAGCAGAGTCCGGTGCCCATTCTCCATGGTGCGGCGGCCTTGGCCG ATGATCTGGCCGAAGAGCTTCAGAACAAGCCATTAAACAGTGAGATCAGAGAGCTGTTGAAACTACTGTCAAAAC CCAATGTGAAGGCTTTGCTCTGTACATGATACTGTGGCTCAGAAGAATTACGACCCAGTGTTGCCTCCTATGC CTGAAGATATTGACGATGAGGAAGACTCAGTAAAAATAATCCGTCTGGTCAAAAATAGAGAACCACTGGGAGCTA CCATTAAGAAGGATGAACAGACCGGGGCGATCATTGTGGCCAGAATCATGAGAGGAGGAGCTGCAGATAGAAGTG GTCTTATTCATGTTGGTGATGAACTTAGGGAAGTCAACGGGATACCAGTGGAGGATAAAAAGGCCTGAGGAAATAA TACAGATTTTGGCTCAGTCTCAGGGAGCAATTACATTTAAGATTATACCCGGCAGCAAAGAGGAGACACCATCAA AAGAAGGCAAGATGTTTATCAAAGCCCTCTTTGACTATAATCCTAATGAGGATAAGGCAATTCCATGTAAGGAAG  $\verb|CTGGGCTTTCTTCAAAAAGGGAGATATTCTTCAGATTATGAGCCAAGATGATGCAACTTGGTGGCAAGCGAAAC| \\$ ACGAAGCTGATGCCAACCCCAGGGCAGGCTTGATCCCCTCAAAGCATTTCCAGGAAAGGAGATTGGCTTTGAGAC GACCAGAAATATTGGTTCAGCCCCTGAAAGTTTCCAACAGGAAATCATCTGGTTTTAGAAAAAGTTTTCGTCTTA GTAGAAAAGATAAGAAAACAAATAAATCCATGTATGAATGCAAGAAGAGTGATCAGTACGACACAGCTGACGTAC TGGGAGTAGGGCTGAATGAACTGAAACGAAAGCTGCTGATCAGTGACACCCAGCACTATGGCGTGACAGTGCCCC CAGATGTACAAAATAACAAGTTTATTGAATATGGAGAATATAAAAACAACTACTACGGCACAAGTATAGACTCAG TTCGGTCTGTCCTTGCTAAAAACAAAGTTTGTTTGTTGGATGTTCAGCCTCATACAGTGAAGCATTTAAGGACAC AGATTATTTCAAGCAGAGATGACCAAGGTGCTGCAAAACCCTTCACAGAAGAAGATTTTCAAGAAATGATTAAAT CTGCACAGATAATGGAAAGTCAATATGGTCATCTTTTTGACAAAATTATAATAAATGATGACCTCACTGTGGCAT  ${\tt TCAATGAGCTCAAAACAACTTTTGACAAATTAGAGACAGAGACCCATTGGGTGCCAGTGAGCTGGTTACATTCA{\tt T}$ **AA**CTAAGAGAAATTTCCATAATTGTCTTTTTCTATAGAGTGCATGATGAAATCAATTACAGTTTTGGTAGTAGGG TTTTTAAATCTATATCACTGTCATAGATGTACAATCTTGGTTCAAGTTGAATGCTGGTTTTGTTTTGTATCTTTTT ACAGCCTTATTTCAAACGCCATGTGTTAGTATAAGATCCGAAATCAAAATATGCACAGTACTGTATTCTAAGCAA AACCTCAAACCTTCTCGTTGTCTTCAATACCGCTCTATCTCCAAGATGAGGCTGAAATTTTCAGAGAGACTTAGC TAGAGGCTTAGTATGTATGGGAGTTCAGCGCTTCTGCTGGTCTCAGGTGTGGCTGCTGCTGCTGAGTTTGAATGT ATCATCACAGATTTAGCCGGGCAGGCAGTAAGGTGTCCTCTTACTATTCAAAAAGTGTAGACTTTCTTACATATT CGCAATACGTTCACAGTGTGTGCATTTTAAAATAATTCTTAAAGGAGTAACTGAAATTTTACCTTGAGTGAATGG CCTTCATAATATAGCTTGAGAAGTCCTTTTGAGTACCTGTCAGTGACTCAACAACATTTAATAAGGGAAAGTAGA GCAAGAAATGATTACAAAGGATATTTTTATTTGTAATTCCTCAGAAGACAATTTATGAAGTCACCCAAAATGTTA TTTTAGCTGGTTTTGGATTTTTCCAATAAATTAGAAGAAGGATTTCTATTCTAAAACATGTAAAACCTGTTTTAC ATATTACTGATACAATTAAAGATTATTTTTCATCTATGTGCAATAGATCACCCCTCTTTAAATTGCTCTAAGATT TATTTTAGAAAACTTTTCATGTGATGTTATTTCTTTGTCATCAAAATGCTTGTTAACACTGTCCAGACACCATCC TAACCTTGCCATTGTTAAAGAAGTTTAGGAAAGACTCTTATATTGTAAATATTTAGATGGGTTCTCTCACTTTTC TTTGATACTACTGATTTTCAGCAAGTGAATTATATATATCAAAATGCTAGAAATGTCTATCCGTTCTATAAGAGA GCATATCCTGCCGTTCTTGCATGCAGTGAAGCCCTGCCCGTCGAAAATCATTGCATCTGTGACTTTCAAAGTGGA ATTCTATATATTTATGAAATATTTTAAAGGCATATTTTTTTAAATATCAAACGGGGCTATTCATAAAATAAACTG ATTGTATGTCAAGATGTCCTAATTTAAAAGAGTAGTTTTATAAATCATGGTCAACATTCCATGTAAATATTTGAG CTTTACAAAGATAGATCCAAGTGTGCGATCTGTGCACTGCACATTTGATAGCATTATTCACTGGTTTTCCTTCAT

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#### 2095/2682 FIGURE 1898B

ACTTGTCAAGTTCATATTAGAAGCAGAGACAAAAACCACTCCAATGGCCTTGACACATAGTCACCAAAAATAGA TTTGTTTTTAAAAAATGAAAGAGGGAGGGTTGCCAACCTGAAGTCTTAAGTAGATTGTTTGGGTAGCATATTTCC TTCTTTGAACATTGTCTGAAATTTTCTATAAATCAAGACTTCTTGTACAAAGAATGATGGGACATATGTAATAAT TCAGGCAATCACCTGAGTAATTTAGGCAGTCCAAATTCTTTACCCTGAAATACCCACATTTTAAAAAAATTGCAG ATAATTGCTTCAGTTATTTACTTTGGGGACAGAGATATAGTGTAAAGTGGGAGAAACTGAGTCCTTTTTTGGTGG AATATTTTTTAAATAATGGGGGGAAAAGGGGGCACTTTGGTAATTTTAGAAATCAGGTAGTATACNNNNNNNNN ACATGGCCATCTTGATGCTTAGAAAGATAATTGATTAAAATTTAATAAGGCAGGGCCAACTCCGAGAGTTCATTG ACAACGGCAGCAAAAAGGCCCTGAATTCTGTACTTTCTCCCCCAGCCTCCTTCTCCAGCAAGGAGAATAGCACT CCTCCCTCCAGAAGCCAGCTCCCTAAGTTGGAGCCACTATGTAAGAGAAGAGAACGTTCACTTTTAAAATTCA TGAAAGTAAAATTTAATTTTTACCCTTATTTTACTGACCAATATGGAAGTTCTTGGTATCTTTAAGGCTGACCT TCCTGGTATTGTGTAATGATTGAATGTATCTAAACTGTAATAATTTGAAACTGACAAACATAACCTTCTCAGACT GGATATTCTATTTTATTATACTACTATTGTGATCTATTCCATTATACTATTTCCCATGGTAGAACAAATTATATT TTCTACTGTGATATGAAGTGATGTAATTGAACTTGCCATGTCTAAAATTAAATTTCATATTTTTTTC

# 2096/2682 FIGURE 1899

MPALSTGSGSDTGLYELLAALPAQLQPHVDSQEDLTFLWDMFGEKSLHSLVKIHEKLHYYEKQSPVPILHGAAAL ADDLAEELQNKPLNSEIRELLKLLSKPNVKALLSVHDTVAQKNYDPVLPPMPEDIDDEEDSVKIIRLVKNREPLG ATIKKDEQTGAIIVARIMRGGAADRSGLIHVGDELREVNGIPVEDKRPEEIIQILAQSQGAITFKIIPGSKEETP SKEGKMFIKALFDYNPNEDKAIPCKEAGLSFKKGDILQIMSQDDATWWQAKHEADANPRAGLIPSKHFQERRLAL RRPEILVQPLKVSNRKSSGFRKSFRLSRKDKKTNKSMYECKKSDQYDTADVPTYEEVTPYRRQTNEKYRLVVLVG PVGVGLNELKRKLLISDTQHYGVTVPHTTRARRSQESDGVEYIFISKHLFETDVQNNKFIEYGEYKNNYYGTSID SVRSVLAKNKVCLLDVQPHTVKHLRTLEFKPYVIFIKPPSIERLRETRKNAKIISSRDDQGAAKPFTEEDFQEMI KSAQIMESQYGHLFDKIIINDDLTVAFNELKTTFDKLETETHWVPVSWLHS

#### 2097/2682 FIGURE 1900

2098/2682 FIGURE 1901

MFTGKKE

#### 2099/2682 FIGURE 1902

TACGAACCCTGAGGGCCTACTTGGCTAGGTGCTCACGGTCTGGTAGAGGAGACAAAGATACAAAAACAGAGTCAC GGGCAGCCTGTCCAGAGGCGCAGACCTGTGTGTGTGGGGAAGGGGTGATGGGAAGTGCAGACTCGGCAGTGCTTG TTAACAGAGGTGTGAATGCCGCGCCTTGCTTGCCTGAAGATTTCCACCCAGGATCCTGACAAAAGTCAGATGTGC ACTTCAGAAAGGCCAGGCGGGCTGCAGTGAAGAGAATGACTCGAGGGGGTGCGGGTGTGGGACAGGCCATCGAGG CAAGGAGGCCAAATGGAAAGCTTTGGTCAGGACACAGGTGGTGATGGATTCGGGGGGAGAAATGGGGGAGGGTGAC GCAGGCAGAGTGGCCAGGTTATCAAGTGGCATCATTCACCACAAAATGCAGCCTTATGGCTGACGAGCTACCTTA CTGAGCATATTCCTGCCTCTACACCAGAGACTCACTCTGTGGTCCGGTGTCACCTCGATTCTAAATTCCCTGCTT CCTGGTGAATGATGCTATCACACTTTAGAAACCTGGCCAATAAATGCTTTGAAATTTAAGGATAGCTATCCTGAA AAAATTTAATATAACCTAAATTGATAGTCTAATGACATCAGTATTCAGAAGAGGCATTCTATTTCAGCAAGTGGT TTTCAGAAAAAAAAAAAAAAAAAAAAAAAAACCTGAGTTTTTCTCCTGCCACTCTCCCCTCTTGCTTTTATGCTGCAAAA AGAGCTTGTGGCTTGCCTGACACCCGTGTTGTTCTCTGCCTTCGAAGATCTAGCTCCCTCAGCCTCCCCACGTT GTCCACCTCTCCAATACCATTGCTCCACTGGGAAGCTGGCCCGGAGGTGCTCTACCACGTTCATCTCTCGCAGCC CAGGGCTGTCTTTAACGTTACAGNGACNCAGATNTCAAAGNNTTGCAATTTATTTGGCTTTCATTAATTTGCCGG AAGCAAGGGAGGGTAGATACAAAGTACTCCTCTACCCTGTTATTTNCCTTGGCTGTTAAAATGTAAAGAAGACTG ATGTAAGAATCTCTGCCTTCCACCAGTCATAACCATGGTATGCACAGAGCTTATGAATCATCTTCTAAATTCACA GCTAGTTTTAAAATTTAGCTTCCAGGCTAGATCTGCAGGAAATGATTGGGAGATCGTAAGTGCTATGGAGTGAAT ATGAAGTTACTTACCAGATCCCATAAAGTTAGCTCAGGGAATCCTGAGGAAGGTGTCACTCAGAAAGCTGCTTTC AAAGCTGAGTCAGACCTGCATGGTGTTTATTACCTCCATTGTGTTACCATGCCAAACATATAAATAGCTTCAAAG TGAGTTCAGATTAAAACACAGAAAAATCTTTGGATATATTCACAGGCCAGTGGGGGTCATGTAACAAGTCAGCAA GGAAAATAAAAGATATTTGAGGTACAGCCTCAACTTTTTAAGATGGATCTTGAATAAAAAGGTCTAATGAAATAT TTTATGGTATTGCTCTCTGGGATTTAAAAAAACAAAGCCAAAACCAAAAACGAGGCACTGGAACAATGTTTAGATA TCACCACCATGTGATAAAGCGTAGACTAGCTGTGACCTAATACGTACTGATCATGACTAACGCAGAAGTCCAGGT CACTGCGGTTGTATTTCCTGTGGCCTCAATGTTCTGGGGTTAGGGTTAACAGGGATAATTCATTTCTGTGTTCAA GTCTCTAATTCTTCCATCATGTAAACTGTAAGTGGGAGCAGACTGGATTCAGCATTGCTACAAGAGAAAAACAAC NNNNNNACTTTTCATAAATAAATGACTCGTGTTGGAGGTGTTTGTATCCTTGGGGCCCACTCAGTTTTATTCAGC GGATCACCTGGCCACAGCTCATGAATAGTGCAGATTATCACACCCCACCCCCATGACTCCAGCAAATGTGCTGTG GGTATAGGAGAGTATATTCAAAAAAGGCAATTAACAAAGCAACTGTCCCAACTACCAAGAAAAACAAATGTGGCA TAACCCATGATAGAACCCTCTTTTTTCCTTATTAGACATGAACAGAAGCTCATTAATGCCGTCCAGTAAGTTCAA CCTCATCATGT

2100/2682 FIGURE 1903

RTLRAYLARCSRSGRGDKDTKTESQCVMSAMGA

#### 2101/2682 FIGURE 1904

GCTGGCTTTGGCTTTTTTATGTAGAAAAGGAACCTATTGAAAAGATACTGATTGGTTCCAATAACTGCTAGAAGT TTCTGCAAAACCATGCTTTGAAAGTGAGCAGGAAAAGAAGAGACTAGGCTGTGGCTGGGAGCACAGCCAAAATTA CAAAACCAGCCCAGGGATGATGATCCTGTTCATGCACAGCCACTGTCCCCAGCACTAGGCACAGACTCTACCACT GCCTCACTGTCTCTGCTGGACTTGGAAACTTGATATTACTGTTACTGCTGCACTGTCTGNCATGNAAATGNGTTG TCCAGGGTCCCTTCTTCATCCTTTCATCTCTAGCTTATAATTCAAAGTCTGGGATTGAGTGGCCAATCCTAGGTC ACATGTCCATGTCCTATCTCCAAGGGGGGCTGGGAATTGAATATCTGGCATTTTCCACTTTCACTTCTTATGAAT TAAGGAATTCTACAAATAATAGAAGTGGGATTCAGGTGGTAGGCAGACAAAAAAGCCTCACAATTATCCACTACG CCACCCTTGTATAACCTTACCCTCATTCACTGTCTACTCTCAAAACTGTGGAGCTACTA<u>ATG</u>AAGATTTGTAAAC CCTGGGCTTATGAGCACCCATTCCTTTACTACAACTCAGATTGCTCTAGAAGCTCAGTTCCCAGCACTTGGATTT TTCCAGTAGCTGAATTCTACCTGAAGGAAGGGCAGAAACAAAGGGTGAAGAAGAGGCTATCACTTCCAAGTATCC CARATGGCACTATGGGGAGCGGGAGCTTGCCTTTTCCTCAGACTTAAAACAATAAGTTTTCCCCGTGTTTCCCCT CTAATGCTGTTTTCTTTTGACCAAGCATGTCTGAATTCTAGAGAAGTCAGGAGGAACACACCCATTCTCGGTTTG AAGGGACTGATGTTCTGAAGTACAACTGGGCACAGTCCCAGGCTCTTCAGGACGCTTCCTCCATTCACACAGCGG GGATGTGATTGTTACAGCGGGTGGTGTGTGCTGGCTGAGAAGCCACTGTGAATTGATTCTTCTTCTGAAGTTTAT GTTTCTACTTTTTGGAAATGAATAAATTACAGCCAGTCCATCAAGGAAATTGC

# 2102/2682 FIGURE 1905

 ${\tt MKICKPWAYEHPFLYYNSDCSRSSVPSTWIFPVAEFYLKEGQKQRVKKRLSLPSILHPWAQDLTGEGVFWATHQTALALCLSP}$ 

# 2103/2682 FIGURE 1906A

CAGATCCATGTTCACTAGCGGCCTTACAGAAAGTACTCAAAAAGAAGTTCGAATAGTTGGTGTTGAAGCTGAATC GATGGATTTAGTGTTGAACTATGCCTACACTTCCAGAGTTATTCTTACAGAGGCCAATGTTCAAGCCTTGTTCAC TGCAGCTAGCATCTTCCAGATTCCTTCCATCCAAGACCAATGTGCTAAGTATATGATCAGTCATTTGGACCCACA TCGTAAAAAGTTTCTGTGTGTCACCAAAGAACAAGAGTTTCTCCAGTTGACAAAAGACCAACTGATAAGTATACT AGACAGTGACGATTTAAATGTAGACCGAGAAGAGCATGTTTATGAAAGCATTATAAGGTGGTTTGAGCATGAACA GAATGAAAGAGAAGTGCACCTTCCAGAAATTTTTGCTAAATGCATACGTTTTCCTCTGATGGAAGATACCTTTAT AGAGAAAATTCCACCTCAGTTTGCACAGGCTATAGCCAAAAGCTGTGTAGAAAAGGGACCATCCAACACCAATGG CTGTACACAGAGGCTTGGAATGACTGCTTCTGAAATGATCATATGTTTTGATGCTGCCCACAAACACTCAGGAAA GAAGCAAACAGTGCCTTGTCTAGATATAGTCACAGGAAGGGTGTTTAAACTATGCAAACCACCAAATGACCTGAG AGAAGTTGGGATTCTTGTATCACCAGATAATGACATTTACATTGCAGGAGGGTACAGGCCAAGCAGCAGTGAGGT CTCCATCGACCATAAGGCAGAAAATGATTTCTGGATGTATGATCATTCCACCAATAGATGGCTATCCAAACCATC CTTGCTTCGAGCCAGAATAGGCTGCAAACTTGTCTATTGCTGTGGTAAAATGTATGCAATCGGAGGTCGTGTTTA TGAAGGTGATGGGAGAAACTCACTAAAATCTGTTGAGTGCTACGACAGTAGAGAGAATTGTTGGACGACTGTTTG CGCGATGCCAGTTGCAATGGAATTTCATAATGCTGTGGAGTACAAAGAGAAGATCTATGTTTTACAGGGAGAATT TTTTCTCTTCTATGAGCCTCAAAAAGACTACTGGGGTTTCTTAACCCCCATGACTGTGCCTAGAATCCAGGGCTT AGCAGCTGTATACAAGGACTCTATCTACTACATAGCTGGAACCTGTGGAAATCATCAACGTATGTTTACTGTAGA TAAACTGGTACTTTTCCAGAACAAACTCCATTTATTTGTTCGAGCTACTCAAGTGACTGTTGAAGAACACGTCTT CAGAACCAGCAGAAAAAATTCCCTTTACCAATATGATGACATTGCTGACCAGTGGATGAAAGTGTATGAGACCCC AGATCGGCTCTGGGACCTTGGCCGGCATTTTGAATGTGCTGTTGCTAAACTGTATCCTCAGTGTCTTCAGAAAGT ACTCTAAATGAGTAGCAGGCCTTAGTGCATCACTGGCATCTCATTCTTAGGAAACTTGTCTTTGATACAAAAGAG TGCTGACAGTATTTCAGAAAGCTGAGAGAGTTTTATACATGGAAAATGGGTATGCTTAAAGATTGCAGGGTAGGG AGGGATTTTCCTTCATCCTTGTGACATTTCATTTCAGTAAGGAAAAGATAACAAAGTGCAATTATCAGCATTTTT TTTTCCTGGCATAAAATTAATCATTTCATTTTATAATTTTGTGATAAATAGTAACTGAGGTACCAGATGAATCAG GACAACTATGCACTCTTATAAGAGCATTTAGGGTATTATTGGGTAAAGACGTCTAAACTTGTTTGATGTGACTTT TAATTTTAAATACGGGTAACAATCTGAGGCAATATCACTAGGACTTTAGCTGTGACCTCTCTAACACAGAGAAGC ACTAACTTAGATCCTCATTCTTAATATTTATATGTATCTATTTTTGTGTACTGTTTTCAAGTGTACTGAGATTTA AATGTGTTCTATTATTAGAGTAGATCGAAGAAAAAATTAGTCTCAGAAAGAGCTTTTAGTCTGATTGTTTCCATT TCCCATGTAATTTTAAGTTAAGCTAAAGTTTTAAAGTGGCAGTTTTCTGTCGATGACTTTTTCAAGTGCTAACAC TGTCTCTTTTGTGAAAATCTGGAAAAGTGCTCATATTCACAGGTGGCTGGTGCTAGTCTAACTTAATTCATGTGT ATAACTAGATGGATTTAAATGGTCTGAGCCTATGCCTATCTTTCAAATTGGTGTGGATTTCATGGCCATAGTACT TTACCTGTTGAACTCTTGTGATTTCACAAGATTCTCTACTTATGTGATAGGAGGGTATGGCCAGTTATTCATCTA ACTGGACTCAATCTTAGAATAGTAGGAACATTATACCCAGTTTGCACTAACATGGGCCCATTTGTAGCCCAACCTT CTCTTCCATCTACCTGTCCATTCATTATTGGTACAAGGAAAGGTAACTTATTTCTCTTCTGCACAGAGCATAATG TGAAGTTTTATACCTACTTTTAAAATTCTGCTTTCCAGAAACAAAATTCCTGCAGTGGTCTAATTTAATGTCTTT AAGTTTCATATTACAATTAAAACCTCATTTTTTTTTTCCATTTTTGCACTTAACAGTGATGAATACTTTTACGTT AAGCATTTTTTGCATTTAACTGATGAAATTTCTAACAATCATCAGTTAGGAATATTAACATGAAGGATAAACCAA CTTATTTGTATACCTAAGGCAGGCATTTGGATCAGTAACATGTTTTACTAAGCCTAGAGTAATTCGTAAAGGGTA TAAGCATAGGACAGATTTTGCCCTCAATCACAATATTTGTATTCACTTGAAAGCAAACTGGCATGGTTCGTATTT TAAAAATCTTGCACAAATTGTAATGTGATACTGTGAAACAAATTGAAAACATTGCCTCTTTGCATCACATACCTC GTTTTTCAGAAACTTTCCAAACTGCTTTACATAGACCTCTACAAGTAGGGAATGTTTTCTGAAGCAGAAGTTAAA ATGGACAGCATTTCTAGAATTAACATTTTAAAATCTAGTCTTAGCTAGATATGTGGTTTCTTCTTATTGGTGTTG ATAGTATGTCTGTAATCTCTGTATAAACTTTGTCAACATTTTTACCTCCCCAGTTTTATCTTCTGTTTTGTTTTT GTTTTTATCATCATGATGTTTTGGAGTTATTACTGTGTATTTTAGAAATCATTCTTTACAGTTTTGCATTGCTGA CCTGCCGCTTTTTGACAATCTTGTGTATTTAGAAAAATGTATTACTTGAAAACATGACATAGAACATTGAGTTAG

# 2104/2682 FIGURE 1906B

# .2105/2682 FIGURE 1907

CCGGGGCGGCGGTTGCATCAGATTCTAGGAAGTGTCTGTAGCCGCAGCTGCGGGTCCGGGATTCCCAGCCAGATTCCTCCGGGCAGCGGCAAAGGCCGGCGTGTGCAGCCCCAGTGGTCCCCTCCTGCTGGGACCCAGCCATG CAGACTCCACCTTTACAACAGCCTCACCAGGAACAAGGAAGTGTTCATACCTCAAGATGGGAAAAAGGTGACGTG GTATTGCTGTGGGCCAACCGTCTATGACGCATCTCACATGGGGCACGCCAGGTCCTACATCTCTTTTGATATCTT GAGAAGAGTGTTGAAGGATTACTTCAAATTTGATGTCTTTTATTGCATGAACATTACGGATATTGATGACAAGAT CATCAAGAGGGCCCGGCAGAACCACCTGTTCGAGCAGTATCGGGAGAAGAGGCCTGAAGCGGCACAGCTCTTGGA GGATGTTCAGGCCGCCCTGAAGCCATTTTCAGTAAAATTAAATGAGACCACGGATCCCGATAAAAAGCAGATGCT CGAACGGATTCAGCACGCAGTGCAGCTTGCCACAGAGCCACTTGAGAAAGCTGTGCAGTCCAGACTCACGGGAGA TGGCTGTGATGTCACTGACAATTCCATCTTCTCCAAGCTGCCCAAGTTCTGGGAGGGGGACTTCCACAGAGACAT GGAAGCTCTGAATGTTCTCCCTCCAGATGTCTTAACCCGGGTTAGTGAGTATGTGCCAGAAATTGTGAACTTTGT TAGCGAGAAGCACTCCTATGGGAAGCTGGTGCCTGAGGCCGTTGGAGATCAGAAAGCCCTTCAAGAAGGGGAAGG TGACCTGAGCATCTCTGCAGACCGCCTGAGTGAGAAGCGCTCTCCCAACGACTTTGCCTTATGGAAGGCCTCTAA GCCCGGAGAACCGTCCTGGCCGTGCCCTTGGGGAAAGGGTCGTCCGGGCTGGCATATCGAGTGCTCGGCCATGGC AGGCACCCTCCTAGGGGCTTCGATGGACATTCACGGAGGTGGGTTCGACCTCCGGTTCCCCCACCATGACAATGA GCTGGCACAGTCGGAGGCCTACTTTGAAAACGACTGCTGGGTCAGGTACTTCCTGCACACAGGCCACCTGACCAT TGCAGGCTGCAAAATGTCAAAGTCACTAAAAAACTTCATCACCATTAAAGATGCCTTGAAAAAAGCACTCAGCACG GCAGTTGCGGCTGGCCTTCCTCATGCACTCGTGGAAGGACACCCTGGACTACTCCAGCAACACCATGGAGTCAGC GCTTCAATATGAGAAGTTCTTGAATGAGTTTTTCTTAAATGTGAAAGATATCCTTCGCGCTCCTGTTGACATCAC TGGTCAGTTTGAGAAGTGGGGGAGAAGAAGAAGCAGAACTGAATAAGAACTTTTATGACAAGAAGACAACTATCA CTATATGGCAGCCCGGAAAGCCGTGAGGAAGAGGCCCAACCAGGCTCTGCTGGAGAACATCGCCCTGTACCTCAC CCATATGCTGAAGATCTTTGGGGCCGTAGAAGAGGACAGCTCCCTGGGATTCCCGGTCGGAGGGCCTGGAACCAG CCTCAGTCTCGAGGCCACAGTCATGCCCTACCTTCAGGTGTTATCAGAATTCCGAGAAGGAGTGCGGAAGATTGC AGCAAAGCTGGCCAAGATGAAGATTCCCCCCAGTGAGATGTTCTTGTCAGAAACCGACAAATACTCCAAGTTTGA TGAAAATGGTCTGCCCACACATGACATGGAGGGCAAAGAGCTCAGCAAAGGGCAAGCCAAGAAGCTGAAGAAGCT  $\mathtt{CTTCGAGGCTCAGGAGAAGCTCTACAAGGAATATCTGCAGATGGCCCAGAATGGAAGCTTCCAG\mathbf{TGA}_{\mathtt{GGGGGGCAC}}$ AGGACTGACTTTTTAAACCATTGTGGACTAGTGGCTGCTGTCTGCCTCAGTGACAATGTCCCAGCGCTCCTATCA TGTTTACAGTCACCCTTGGGTCCTAAATTAAGAGTTGTGTTCATGTAGGTTCGTGTCGTCGTTGGCTCTGAGACA 

# 2106/2682 FIGURE 1908

MADSSGQQGKGRRVQPQWSPPAGTQPCRLHLYNSLTRNKEVFIPQDGKKVTWYCCGPTVYDASHMGHARSYISFD ILRRVLKDYFKFDVFYCMNITDIDDKIIKRARQNHLFEQYREKRPEAAQLLEDVQAALKPFSVKLNETTDPDKKQ MLERIQHAVQLATEPLEKAVQSRLTGEEVNSCVEVLLEEAKDLLSDWLDSTLGCDVTDNSIFSKLPKFWEGDFHR DMEALNVLPPDVLTRVSEYVPEIVNFVQKIVDNGYGYVSNGSVYFDTAKFASSEKHSYGKLVPEAVGDQKALQEG EGDLSISADRLSEKRSPNDFALWKASKPGEPSWPCPWGKGRPGWHIECSAMAGTLLGASMDIHGGGFDLRFPHHD NELAQSEAYFENDCWVRYFLHTGHLTIAGCKMSKSLKNFITIKDALKKHSARQLRLAFLMHSWKDTLDYSSNTME SALQYEKFLNEFFLNVKDILRAPVDITGQFEKWGEEEAELNKNFYDKKTAIHKALCDNVDTRTVMEEMRALVSQC NLYMAARKAVRKRPNQALLENIALYLTHMLKIFGAVEEDSSLGFPVGGPGTSLSLEATVMPYLQVLSEFREGVRK IAREQKVPEILQLSDALRDNILPELGVRFEDHEGLPTVVKLVDRNTLLKEREEKRRVEEEKRKKKEEAARRKQEQ EAAKLAKMKIPPSEMFLSETDKYSKFDENGLPTHDMEGKELSKGQAKKLKKLFEAQEKLYKEYLQMAQNGSFQ

#### 2107/2682 FIGURE 1909

CAAATCCAGTCTCTAGCAGTTATGTTGTTAGAATGGATTCATCTGTGCTTATTTCACAATACTTCATTTATAGCA ATGCTTTTCCTTAAGCTAATGTATAAATATTTC**TAA**ÂGGCCATTAATAGTAACAAAATAAGTAGGGGAAAAAATG GACCTTCTGTATAAAAACCCCTTAGCTTTTTTTTTTCACAAGTTATAAGTGGAATAAGTTAATAACTGAGCTCGT AAGTGTATCTCATAACTATAAGAGCTACATGAAGAAAATAGGAATAACACACCTGGTATTTAAACACAATCTTCA AAATTCTTGCAACATTAAACATAGTAAAATGCCAGAATATAAAATGAGGTGTGCTAATGGTCACAGGATTGAGGC CAGCATTACAGTTTGGGGTGATTTTTTTTTTTTTGCTCCCTCACTTTGTTTCCTAGATGCTAGTAGGGGTATCT GGGTTGCTTGAGATACCATTTTGCAATTGCCCCTTCTCTTTTCTGCCTACCATCTTCTCAGGCCCTGATGAGCTTA TTGGTAGGCAACTGGGCTGCTTTAATGTTGAACTTGTACTTCTTTAGAAACTGAAGTGGAATCATTGAAAACTTT CAATAAAGCTTTAAAGTTCCATTTACTTTTGAAGCACAGCTAAGCTCCTCTGAAGGCAGCTGGTTTGTTGCAAAC AGTAATAATTTGAGCCAAAGGAATTTGAATTAAGAAAATAGAAACTAGGTTTCATGTATTTAAAAAAATAGGAAAT AAAATAGAAACTCAAATGCCATGAAGTTATCTTCCTCTTCCTTATATCCCCTAAGTTTGGGGATATAAGGAAGAG GAAGATAACTTTCCAATTCCTAATAACCTAAATTATTTTGAAATAGTGTTTTCAGTGAAATGATGAATGTTTGAA TGTTTGTTTGGTAATCAACATAACAATGCTAACAAAATTCCCACTTAGATTTTTTAACTTTTAAAAGTCAGCGTG TGATAGGATGGAGTGAGCAAAATTGTTTTCAGGGAAGATGGCACATTTTAGAAAAGACTTGCCCAGATGATCTTC CATATTGCTCCCCCAATGTCATTTATCGCTCATGCCAATCCTCCTCTTGTTACCTGTGGCTATGGTAAAATTCCT TTAACAAGCTTCATTGTGTCCAAGTATTTCAGAGACTTTTAAAAGCTGGGCATGACATAGCGTTTTGTGCTGTTA AGACCTTAGCAGAGTCAGGTAGTTTACGGGTAATATTCAACCTTGTGCATCTGAATCTGTCATGGATTCCCTTCA GTTGTGTGGCGCTTGGTAACAAGTCTGTACATATTATGTATAAAATGTGTATTGGTTAGCATTTAGTACTAAGA AATTCTGAGTTTAAAATAAGTGATTTTTTCAAAGTAGCGATATCTATATCTGTGTTTTATCTAAAAATACTGGCT TGAATAGAAAACATTCTCAGATGATTCAAGATTGAGTAAAAATGAGAATCCCATACATTCCATTATTAAATTCTG CCCTATTCCCAATTGTTAGCATCTGGCTGATATTAAGGTCTTTGATTGTCACAATATTCTCAATAAATGAGACAT TCTGAACTGCCTGGTGATATTTTCAAAAAGAGCAATTAAAATGTGTATTCCCTCTAATACAGCTGATAGAACTGT TGTGTTAAAGCAAGTTGGAAATTTGCATGATAGTGTGGAAACCAATGGAGGTCCAAAATATTAATCATATCTAAA ATATCAGAAAATATCAATACTAGTCTTCTTTATGCATATTTTTGACTTTTTAAGAGGGGCTTATGAATTCAATGTT TCTTCTGAGGCAATCCTTTTAATGTAAATACTAAATACTTGCATGTCTTTTGACAAAGGCTAAACTACAATCTAT TAATATGCACATTTTTGATAAAATATAAAGTACCCTAATTAAAGAAATTGTGGTAGAAGGTGTATGTCCTGAATA CTATACCTGTTTAACAATACCAAATGTTAAATAAAAATAGTTTGAAATTAATGTTTAAAA

FIGURE 1910

QIQSLAVMLLEWIHLCLFHNTSFIAMLFLKLMYKYF

#### 2109/2682 FIGURE 1911

CTAAAAGCTGCTGTACAAGCCTTTAAAGAAGCAAGACAAAATGTTGCTGAAGTTGAGTCATCAAAGAATGCTTCA GAGGACAATCATTCTGAGAATACTTTGTATTCAAATGATAATGGAAGTAATTTACAGCGTGAAGCAACTGTCATC AGTGAGCAAAAAGTCAAAGAAACCAAAATATTGGCGAAGAAACCAATACATAATTCAAAGGAAAAAATAGCAAAG ATGGAACATGGACCTAAAGCAGTGACTATTGCAAATTCTCCATCAAAGCCTTCAGAAAAGGATTCTGTAGTTTCC GAAGAAAGGTTTTACAAGCAGTCTTCCATGTCTGAAGATAGTGATAGCGGTGACGACTTCTTCATTGGGAAAGTC AGACGGACACGAAAGAAGGAAAGTAGTTGTCATTCTTCAGTTAAGGAACAAAAACCACTAGAAAAAGTGTTTCTT AAAGAAGATACAGGTGAAACTCATGGGGATACAAGAAATGACAAAATCAAGCCAAGTACAGAAACCAGAAAGTTA GAATCAGTGTTTTTCCACTCTTTATCTGGATCTAAAAGCTCTAGAAGAAATTTCAAAGAACAGGCTCCAAAAACA AGATCCCTAGATTTTCCACAGAATGAGCCTCAGATCAAGAATCAGTTTAATAAGAAGCTATCAGGAAGACTTGAA AATATTGCTGTGTTTCAGGGGAAAAAATTACGTTTGATGATTAGTTGCCTCTTTCTGCAAACTTTTCCATC TAAAAAAAAAATGTTTTTTTTGGGACAGGATCTCATTCTGTTGCCCAGACTAGAGTACAATATTGCAATCACAG CTCACTGCAGCCTCAAACTCCTGGGCTCAAGTGATCCTCCCACCTCTGCCTCCCAAAGGGCTGGGACTGCAGGTG CATGCACTACCATGCCCAGCTTTCTCACCCCAGGCTCTGCAGCTATTACTTAAACTCGTATTTGAATAAGTCTCT TGGGGAGAATTATAGAATGTTTGTTTTTTTTTTTTTTAAAGTAAATTCAACTTACGCTTATATAAGCCTTTC ACAAATCCAATATGTACTTAAATTGATTTTTAATAATATCCCTCAGACTGTTTCCCTTATGAAGTAATTTGGGGA TTTTAGTGATCTCATATTTTCTCTTTAGTGCTTATCATGAAATGTGCTTCACTGGTTCAGCTCTGTTGTTTCCTT AAACATAAATGTCAATATATATTTAAAATAATAATGGAAACATAGGAAATCAGCTATTTAAACCAGATCACCCTT GTTAAAAATCATTCTTGTTAGCAAACTAAAATAGTAACTTTTATTATGGATGTACAGATAAATATTAATTTATT ATAGTTTTAAGTACTTGTGATCATGTACTTTTTGATTCTAAAATAGTTGTCTAGGACAATTTTGGGATTCTTAAT TATATTTTAGTTAAGAAAATTGTTTAAATATAGCAATACAACCAATAATTTGTTTTATGTTTCACTGCATATAAA TATTTCCATTAAATCAAGAATGTATATTATCTAGTTTTTACTATACTTATTTTAAAATTTTTGAGGAATCATAGA TTCTAATTTTTAAGAACAAATTCTGAAGGTGGTAGGATTAAAAGAATATTTCCACTGATGGCTAAGCAAAGAAGT TGTAAGATGACTCACTGAGGAAGGGACTGCTTTATACATCACAGTACTGCTATTTAAAAGGAAAACAGAAATTTT TAAATCCCTTCAAATGTTTCACTTTTGCTATGCTGGGAAAAATTTTGAAGTTCTTGGTAAACTGAATAATGCTAA TCCATGTTTCCTGCACATTAGTTCCTTTAATGGCAGGGAAGGCCATCTGGTTAACCTGTATTCACAAACTCTCAA GAGTTTCTACTTATTTCAGGAGCTTAAGAATTTAGATAACTCAGCCGGGCGTGGTGACTCATGCCTATAATCCCA GCACTTTGGGAGGCTGAGGCGGGTAGATCGCTAGAGGCAAGGAGTTCAAAACCAGCCTGGGCAACATGGTGAAAC CCTGTCTCTACTAAAAATACAGAAAATTATCCAGGCGTGGTGGCCGGCATCTGTAATTCCAGCTACTCAGAAGGC TGAGGCATAAGAATTGCTTGAACCTGGGAGGTGGAGGTTGCAGTGAGCCAAGATTGCACCACTGCACTCCAGCCT 

# 2110/2682 FIGURE 1912

CTGCGCCTGGCGTCACCGACCGGTGCGGACAGGAAGAGGCTCTGGGCTGGCACATGTGTATGGCGGTGAGGCGGG CGGGTAC<u>ATG</u>CCGGGCTCTGTGGGACTGGCGTTGTGCGGGCAGACGTTGGTGGTGCGGGGCGGCAGCCGATTCCT GGCCACCTCCATAGCAAGCAGTGATGATGACAGCCTCTTCATCTATGACTGCAGTGCTGCAGAAAAGAAGTCACA AGAAAATAAAGGGGAGGACGCCCTTGGACCAGGGGAGCGGTGCGATTCTGGCGTCCACCTTCTCCAAGTCTGG CAGCTATTTTGCTTTAACCGATGACAGTAAGCGTCTGATTCTTTTCCGTACAAAACCATGGCAATGTCTGAGTGT CAGGACCGTGGCAAGGAGGTGTACAGCCCTGACTTTCATAGCCTCGGAGGAGAAGGTCTTGGTGGCCGACAAGTC TGGAGACGTCTACTCCTTTTCGGTGCTGGAGCCACACGGGTGTGGCCGTCTAGAGCTGGGGCACCTGTCTATGCT GTTAGATGTGGCTGTGAGTCCTGATGACCGCTTCATCCTCACTGCCGACCGGGACGAGAAGATCCGAGTCAGCTG GGCCGCGGCGCCCCATAGCATCGAGTCCTTCTGCTTGGGGCACACAGAGTTTGTGAGCCGTATCTCCGTGGTGCC AACTCAGCCCGGGCTGCTTCTGTCCTCCTCTGGGGACGCCCCTGAGGCTCTGGGAGTACAGGAGCGGCCGCCA GCTGCACTGCTGTCACCTGGCCAGTCTGCAGGAGCTGGTGGACCCCCAGGGCCCCCAGAAGTTTGCCGCGTCCAG GATTGCATTCTGGTGCCAGGAGAACTGCGTGGCGCTCCTGTGCGACGGCACTCCTGTGGTCTACATCTTCCAGCT GGACGCCCGCAGACAGCAGTTGGTGTACAGGCAGCAGCTGGCGTTCCAGCACCAAGTGTGGGACGTGGCTTTCGA GGAGACCCAGGGGCTGTGGGTGCTCCAGGACTGCCAGGAAGCCCCCCTGGTGCTCTACAGGCCTGTGGGCGACCA GTGGCAGTCTGTTCCTGAGAGCACCGTGTTAAAGAAAGTCTCTGGTGTTCTTCGTGGGAACTGGGCCATGCTGGA AGGCTCTGCCGGCGCAGACGCCAGCTTCAGCAGTCTCTACAAGGCCACGTTCGACAACGTGACCTCCTACCTGAA GAAGAAAGAGAGAGACTGCAGCAGCTAGAGAAGAAGCAGCGGCGCCGGAGTCCCCCGCCTGGGCCCGACGG  $\texttt{GCATGCCAAGAAGATGAGACCGGGGGGGGGGGGCGACGCTAAGTTGC} \underline{\textbf{TGA}} \texttt{TCGTGGCGGTCTGTTTCTGTCGACTGTGG}$ ACCACTTATGTGCGATCCGTGGACCACTTGCGTGCGATCTGTCGGCCGACGATGAGCTTGTTCGGATGTAGCTCC ATCGTAAGTCGAGGAGCATCTGTGATTTGTCCTCTGCTTATGGGATATGTTTTTCCGCTACTGAGTCTGTAGT AAATTTTTGACTAGGAA

# FIGURE 1913

MAGSVGLALCGQTLVVRGGSRFLATSIASSDDDSLFIYDCSAAEKKSQENKGEDAPLDQGSGAILASTFSKSGSY FALTDDSKRLILFRTKPWQCLSVRTVARRCTALTFIASEEKVLVADKSGDVYSFSVLEPHGCGRLELGHLSMLLD VAVSPDDRFILTADRDEKIRVSWAAAPHSIESFCLGHTEFVSRISVVPTQPGLLLSSSGDGTLRLWEYRSGRQLH CCHLASLQELVDPQAPQKFAASRIAFWCQENCVALLCDGTPVVYIFQLDARRQQLVYRQQLAFQHQVWDVAFEET QGLWVLQDCQEAPLVLYRPVGDQWQSVPESTVLKKVSGVLRGNWAMLEGSAGADASFSSLYKATFDNVTSYLKKK EERLQQQLEKKQRRSPPPGPDGHAKKMRPGEATLSC

#### 2112/2682 FIGURE 1914

TGCCTGGCCTGACATTTTTANAAAAAGTTTTATTTTGCACGGCTCTAAACCTCCATGTTATTTTCCAGTGGTGTA  ${ t GAAGGTACCAGCTAAAG}$   ${ t TGA}$   ${ t CACTATGTAATATTAGGCCATTCTAAAGGAAAGATGTTCCATGTCATCAGAGA$ TGGTAAAATAGGCAGGGAAAAAAAATCTTTGGTACCAAAGATTACACTTGTGTTTCTACACAGCAAACCATTTT TCTTTCATGAAAATAATATTATTAACATGAATATATTATTTTGCTATTAATGTGAAAGTTGTCTCTAAATATT TTTTAATTTTCAAACTCATACTTTATTTTCATTTGAAATGTTTTTCACACCTTTTGCATTACATAATAATTTTGT GGAAGCATTTTGCCCTTTAGAATAAATATTAGATTGATATAGCTGAAATGTGACTTCCAGTTCTTTGATATTCCC CTTGTTATTCAAATAGAAATATGGAAATGCTTTATATATTACTGTTAAATTTCTTAGTGCAGAAATAACATTATT AATAGAGTATTGTTTTCAAAACAGATGATTAATTTCAAGAGGTTTAACAGTGAAATTGTGTCAATATTTTGCATT TAAAATGAATTTAATTGACCGATATTTTCTGTAGTTAAATTTAGTCACAATATCACATATGTTCTTCAAGAAAACA CATGAAATTATTAATAAAGTAATTAAAAAATTTTTAATGTATAACAGAATTGACCAATAGGCCAGTTTTCTGGTA ACTTATGATAGTAGATTGTTTCTTTAGAAACTGGGCAGAAGCTCTGCATTCTCACTTGTACTTTGATTTCTTATT CAGTTCTCAATATTTTTAATTAGATGTCATATTTTTTTAATATAGTAAAACCTTGGGATATAGAATATTACATCT ATTAATGTACTTTTATAATTAAACCTCTTATCTATCAGAAATTGTAAGAGAATAGATACATGTTTTGAATGTAAA GTTGAAAAGTCTGGTTTACTGAATAAATTGAAAGTGATTTATAAAATCTAAATTTGGACTACTTGCAAATGATAA GCTATTCTAGTAGCCTTTAGTTTAAATCCAACAGAAATCTAGAAGTCACAAGCAAATATCTTAAAGGTAAAATCC ATCTGGGCACTCATTTAAAGTATATCTTAAAAAAAGCAGCAGCAAGGTACCTTGCCATTTTTAGCATATTTTCTTC CTTTTTCTTTTTCTTT

FIGURE 1915

 ${\tt PGLTFLXKVLFCTALNLHVIFQWCRRYQLK}$ 

#### 2114/2682 FIGURE 1916A

ACGAATTTAGAATATAGGTAGTGTTCTTGGAATACTTTTAGAATATGTTGGAATAAAGTCATCCTTTCTCATTTT CTGAAAAAGCAGGGAAGAAGCAACAGTTTGGTTTTGATGAGTTTTGGAATTTTCTGCCACTTGTAGTGATAAATGT TCTTAGCAGAAGCACGTGGCAGCATTAAACTTAAAATTAATATCAGTACGTATGTTAATAATTTTAACTAGTTT TATTTTAGAAGGATAAGGATATTCTGACTAGATTACAGTAACATCTACAATTGCAATTTCTATGACAGTAAATTT TCATTTTATCCTGCCAGAAGTATGATGGGCATCTTCCAATAGAAATAAAAGCTGTTCCTGAGGGCTTTGTCATTC CCAGAGGAAATGTTCTCTTCACGGTGGAAAACACAGATCCAGAGTGTTACTGGCTTACAAATTGGATTGAGGTAA ATTGTTTTTTTAATTCTTATTTAACATTAATTGAATAAAGACCATTGAACTGAGATTACAGTTTAGAATTTGTTA GATTGTTTTTAAAACCTAGTTGGCTTTCATCTAATTCATTGCCATTTTAAGTGTGTATTATTTTAGAGCAAACTT ATTCCAACTTCTAGTAACTACTTTCTTCATTTTTCTCTCATCAGTTTAGGTCTTAGGATCTACCATCTGTTACTT TTCAGTTTCTCATCTAAATAAAACAAGATCTGCTGTTCATATTGTTTAATTTCTCAGGAAGGGTACATTTTGGGC CAGAGTTTTGATAATAATACTCTACCTAGCTTCTGAACAGTTTAATAATAGATTTAATCCGTGAGAGGAAATACC CTCGAAAGTTACTATAGAAATAACACCTTACTATCTGGTGGCATTTACTTAGTTCTTAGAACTGACTAATTAGTT TATCGGTTAAAGTAATTTGCTATTATATTGTAAAATAGTACATTTGAGGCTCACTTATAAAAATTGGAAAACATC GAAATATAAGAGGTCCAAGAGGGTGTTTGAAACACATTTTGCTAAGTTGACAGGAAATTAATAGACTTTTTATGG AACTAAATTAATATTTAGGACTGAAATAACATATTGATTAAGTACCAGCTATGTACCCAAAAAATGCTGGGCACA ATCATTAAGAATTAGTGCTGAGTTGGTAGCAGGAAATAGGTAATTCTGTCTAAAGGAATCATGAAATGGAAAATA AATAAGCTTTTAATAAGGAGAAGGAAGAGCTGAAGAAATGGCACAGTGTTCTTAGAATGACAGATAGTCCTATGG GGACTGCAGCATAAAAGTGAAAAATGTATAAGATAAACCTTTAGATGGTAAGCAAGGCAAGATTCTCAAATTCTG TATGAATCAGCTCCACCTCCGCCCCATGGACAGTAGATGACCGTTAATGGCTTTTAAGGAAAGATGCAACCTGGA AAAAAAAAAAAAAACTTGTTTTAGAATGGTAACCACTGGCAATATGAAGAATAATTAGACTAAAGAAGAGAGG TAGGATAATCATGGGCATTGGCAGTGGAATTGAAAGAGTAATTTCAGAAGCAGAATGGTCAGATGTTGGAGGTGA NNNNNNNNNNNNCCTGATTCTGTGGTTGACTGGATGGTCGTCTGCTTGCTTAGACTTAGGCATCTGCAT TTAGCTGAGGGTTCAGCCAGGGCTGGACATCCTTTAATGGCCTCATTCCCATGTCTGGGGCCTCAGGTCAGATAG CTGGGACTACCGGGTCTCACTCCAGAAGAGGCTTCTTCAGAGCATGGTAGTCTTGGGGTTCTAAGAGAATGAGAG TAGAAGCTGCAAAACCTCTTGAAACTGGGGCTTGGGAGTCACACATGACTTTCTCCACATTCTGTTCGTCAAAAG CGAATCATAAGGACAGCACAGACTCAAGGGATAAGAAAGGAGATTCCATCTCTTGATGAGAAGAGCTGCAAAGGC CATATTTAATCAGTCACAGGAGTCTAATGCTACAAAGTAGTTTTTTAAAAAAGATGACTAGATTGGCAAGTTCAAG TAATATCTTTTTGGTTCAGCACAGACATTGCATCATCTTAGCAGCTCTTTTTCAAACAGATTTGAAGCTGCTTCA AATAACAATCTGGTTTATAAAATGAAAATAGAAAATTATGATCTTAGAATGAAGAAGTGAATTTCTAAGCCATGA TAATTATTACGGTTGCTGTGATTAGACAGACTTTTCTGTGGAGCTTCCTGACAACCAAGAAAAAAGGGGAAATCA AGGAACTGTTCTTATCAGAAAGTAGGAACCCAGCAATTCTTTCATTTCTCATTGGGAACTTAATAGTCACTGAA TTACAAAGTAGACAGTGACCTTGATTATACAACATATGCGGAAGTGTTTCCTGTAACTTACGTGAGTATTTTATC AAGTGCTTCAAGTATTAGTTGTCATATTAATCCAAGAGAAAATTAGATCTGAGACTACCTCGAGGAGTAAACGAA CAACTTCTTTAAACCAATACTAGTCAAAATGCAGTCCACGGACCAATGCTGGTTCATGCCCTATTTGATCCAAGT CCACATTAAGTACAGAAATGAAGAGTAAGCATTTAGAAACTTGGGGCAATTTGACATTGCCTCAACATCCAAGTT TCAGTGTCCTTTATAAACTATTGATCCATGACAGATCATGAAACTTTCTAAAAATTGATCCTTTTATCACATAGT CTTTCAAAATATTATTTGCTTCTTTGAAGCTTTGGATAGAAACTTGATAATGTĠAAGTTCTCTGCTATGTGGACC TGGTGTGCTTATCTTCTTTGTTGCTGATTTGAGAGCTGAGCTATGTACTATATCTGGAATGCACACAGCAGGCAT

# 2115/2682 FIGURE 1916B

 ${\tt CCTGCTGTGCAGTTCTGTGTCTAGTTAATAGTATGGAAGTTCACATTATCAAGTTTCTATCCAAAGCTTCAAAGAAGCAAATAATATTTTGAAAGACTATGTGATAAAAGGATCAATTTTTAGAAAGTTTCATGATCTGTCATGGATCAATAGTTTATAAAAGGACACTGAAACTTGG<math>{\tt ATG}$ TTGAGGCAATGTCAAATTGCCCCA

2116/2682 FIGURE 1917

MLRQCQIA

# 2117/2682 FIGURE 1918

AACCAAAAAATAGCATCTGTAGCCCCTGTGTGCTTACTTTAAGTATATGTTACTGAAAAATGCGGAGTGAGCACT TACAACTCATTCTCCTGGGAAGCACAGTGATACTATACCCCAAATGCTTTTCTTTATCATTTTAATTTTTATCTT CTTTACTTACATTTCCAACATCAGTTAAGAGGGTCTTGTAGTTTTCTAACTGAAAGGAGATTGTAAAATCTCCTT TTTCAAAGTCAAGTTCTAATATAGGTAAACAAATATACTAATAAAGAGATAATGCTTTTCTCATGAAATGTATAA TCTAGTAGGAATAAAGATAAACAATTTTTTTAAAAATTCTATTTCATTAAGCAAAAATGCAACTCAGAAGAATAA ACATAGTTTAAAGAATTAGTGACTATGTGCACTTGGATCTCCATATGTAATGTACTATCAGCATCTTCACAAACA CAGTAAATTTTACTACGCAAGTAAAACTTATTTTACTAAACGATGATTACTCCTTCTATATTCATATTCCTAAAC ACATACAGTTTCTTAATGTAATTAAGTTTTTAACTAAAAAAAGGGAAATGCATTATTGAGGCGATAGGATTACTG GGTGGCTATAAACACATCTGCTGCACAGCTGACATTTATCTTCTACAATGAGCAATGACAATTTTATTTTTAAT AATCAGTATGGACTAATCCTGATGATTTTTTTTTAACATTTTCAAATAGGGCTGCATATGGCTTAAAATTAATAT ATACATGTGTACCTATATAATATTCTTATTTATTAATGGACTTCCTACATAGCTCATATTGACGTTAGATTTAAA TGAAATTCCAGAAGGGTTTTCTATAGGTAAGTCATACATTGGATTTCCATATTACCTATGATTATTGAAGTATTT GAGGCATTGTCCTTATTTACATTTTTAAGGTATGTTAATAAAATAATATTTTTAATGAAAAA

FIGURE 1919

 $\verb"MIIEVFISVFKTSEQFCWSFVFCVFILKLFFEALSLFTFLRYVNKIIFLM"$ 

# 2119/2682 FIGURE 1920A

AGGAATGAAAGGTCATAAGCCATTAGAAATAGTGGCATTATTATGCAATAACAACACCCTAGCTAACCTGCTTTT GTCATCTGTAGCACTTACAATAAAGAATGATGACCTTCCAACCCTGGACACTACCTCGATAAAGCAAACCAGAGA TCCTCTCTACACTTTCTATGGAAGCCATAAAAGTTGCCATCAATATATCCACTTTCATAGTTCTATACTTTTATA CTTTCTAGACTTTTTATAGACTTTATGATCAGATCTTTTTTGTCTCAGAGGATAGGTTTTGCAAGATTCAAAGGA AAATCAAACTCCTTGGTTGTTCCAGCTTTGAAGCTTTTGCTTCAGTAAATTTGTTTAAAGAACCAGATCACATAC TCCTGGAACATTCTTTTCCTGATCTAAATCCTACCTCTGACTATTTCATTATCCATGAATATTGGAATTCACCCA TATTCCAATGGGCTTAACTCTACAAACTAGCTAAAACCTTGGACAAGAATTTGACCGTATTTCTAGTTTTGTTCC TCCATGTCATTTTTAGGTTATATTTTTAACTTTTATTTTATATCTTATTTCTTCACATATTTCGTCTCTGTTGA AAGATTTTATCCTTATTTGACTCTTCACTTTTTTTACTTTCACCAGAAATTTGACGTTCCTTTAAAATTAAAGGT CATTGAATGTCTTTTGAACACCTTTTTCTCAACTGAAGTCTTCCTGAATGCCTCCCCTTTCTGATGAAAGGATCC TGAGTGCTGCTGTTGCCCTGTTCCCATGTGCCCACTCCCTTCCGTACACATTTTGCAAGACTATACTCTT TATTTTAGTCAAATTAATTTAAAATTGCTCCCTGGGTTTCTGCTCTCTCATGGCCCTGTCCCTCAAAAACTTCTG TTTACTTTTCTAGCTGTTTTCATCTAATTTGTTTAAAATGTATGATGGATCCATAATATATGAAGGATGTAATG  ${\tt AAAAGGAGGTTGCAGTGTTTTATATAATATGATCGAGCACCTCCGTGATGAAACATTTAGCAATTGGCTAGTCCT}$ TCACAGCCAGAGTGGAAGTTTGTGCTGTGGACAGGTCTTTTTACTCCCTTCCAGTTCTCCTCCAAAACTGGACGA TTGAGCATTTGGGCCTTAGTCAGCATTTTTCCTTTCTGACTTAAAATCTCATGTCCTTTTCCTTAAAGTTAATAG TACTCAGGTTTTTAAGACTAATAACCACACAAGGTGGGTATCTAAGAAGGCAGCTGTTAATACATTCTCCATCTŢ TCCTGTCTGGCAACAGGAAAGATATTATTGGTGAGATAGTGCAAAATTGTGAGAATTGGTTATGTTCGATGATGA ATAAATTCAAGATTTTTGAAGGCTTCACTGCTATTTGGGATGGGAAGGTGAGTTTACAAAATGAAAAAGGTAGAT TTTTATGTTACAGAAATCAGTAACGGGTTTCTTGTTGTTGTTAATTACCTTTCACTTGATTTGCCATGATGTTTCT TCCTCATTATTGATCTAGAAGTTTGCCTCTTGGATAGTAACTAGCAACTTAGTATCTACTTTAAAATTTGTGGCT AAGTGTTCCCATAGCTTTCCAGTCGCAGGTTACTTTCACACTACGTCAGCTTCTCTGGTGAGATCAGGGATGTTA CATATTACTTGAAAATGATTTCATAGGAAGTGAGGATGGGGCAAGAAAGGAGGTAGAAGCTGAATTTTGCTTAAC TTCAGAAGGAAATCTGATACTTGCCTTGGCTAGTTCTGATCAACTAAAGAGCCTGTGTCTGTACTGGATGTGCCA GAAAAGGGACCGTCTGATGAGCATGATAGACATCCTGTACAGGACTCAAGACTGTTTCATTGCATTTGAAAGTTG GTGGGAAGTATTTTATTCTGCTAGAGCTCCTAACCCTCCTAGAAATATCTTTTCATGCTCTATTAATTCAATTCA TTAGTTTAAAAAGAAACAGTGTGACATAATTTTGGTGTTTACTTCTTAAGTTGTCTCCCCAAGGGCATATATGTA GCCTCTGAAAATGGGATGATTTCTTCTCAATCTTCCATAAATTTGAATATGCATTTTATTCATTTCTTGACATGG GCTGTGTGACTGTTTTCCATCAGCAGTTCTGGCTTTGTCCACAAGGGAGCAATAAAGTACGTTAGCTTTATTCTC AACCTTCTAAAGAAAGATCCCACTTTTAAATCTCTTCTGGAATAGCCTCTTAGCTCAAAGCTTATTCATGTATTT TGATTATTTAAGAAATTTTCCCTTATTACAAAGTCCAGTCGTCGTTCATCCCTCATGATGCCAAGCAATGATTGA CTCCGCAGGCCACCATCACATCTATAGGAGGAACAAGAGCACTGGGGGAACTCTGGAGTATGAGTAAGGAAA TGCTTCTCACCTTCTCTGCTCCAAAGAGATATCTGTTACATCAGGGAACAAGTCCTCTAGGTCAGGCACTTCCTC TCAGTAATCAACCTGGGAAGGGAAAAGACGACAGTAAATATTACCCCCTGTAGAGCCGGGAGGCATTTACACCTG GAATGGCCTTCTTAACTGATTTCTGCCTGGCCACCTCACCCCCAGCCAAGTCTGAACCTGAGCAATACCAGGCAC AGAGAGGTGTCTACTTGTAACTCCAACACTTGACAAAAAACAAAACTGAAGCTGTGATTGGTTTAGGCAGCAAGT

# 2120/2682 FIGURE 1920B

# 2121/2682 FIGURE 1921

GGGTCACCTCCGGCCTGCAGGTCAATGTCTTGCACCAGGGCCTTTGGGTGGCATATGACAGTTTGGGACTGTCCA GTCTCTGTACTTTCTGGGGCCTCTCCTGTTGAATGGCTAGGCACCTGCAGGTGTAGGGGCTCAGGGTCACCTCCG GCCTGCAGGTCAATGTCTTGCTGCTCCTGTCCTGGGGAGGGCAGCTCTCTCCTAGCCCAACCCAAAAGCCCCCAG  $\mathtt{AAGCCTCCACACAGCCAGCTCCGGAGTCTGTCCTTGGCT}$ CAGGACAATCAGACATGAAGGGTACCTTTCAATCACACAATCCTACACAGTCCTAGACATTAGGTGGGTCCTCTG  $\verb|CCCTCTGCAGGTGACCTCATCAGAGAGCCCAGCAGCATCTGCCCATTTCCTGTCTACATTCTCCTCCCTAGTGCA|\\$  $\tt CTGGGAGTGGGAGAGCCCAAAGCTCCCCCAGATCTTTAGGAAGCCCCACTGTCAGGCTGAGTGGAGGGCCTT$  ${\tt AGTGACAAGTGATAACTTCAGGGAAGTCCAGAGTGGGAGACACATCTGGGGGTCCAGCTTGCTGGTGGGCACTCCCC}$ TGCTCATGCCCACAGCCTCGAGGGGAAAAGGTCATAATTGACAGGTGGTTCCTGGGGTCCTGAGATCCAGCCCAA GGGATGGGACGACATGCTAGGAAGGGGAAAGTGACAGAAGGTTCATATGCATCACACCACTTTGACAAACCCA TACATAGCATTCACTATAGTGAATAGAAAAACTCACGAAGCACCATAGTTCCAGCACTTTGCAAATATCCCCCAC CCAATACCTTTGAGGTGAGAGTTACCATCATTGCCTAGTTACTGGTGAGAAAACAGAGGTTCCATGACGTGCCTG AGGCACTGAGGGGGATGATGTCAGCACTTGTGGCCGCACGTGCAGGCACACGCCCTCCATGTCACACCAGTGCAC TCACTTTGCAGATGAGGAGCGATGCCTGAGCACTGGGATGGCATCATTGGCTTGTGTTGGACAGTGCCTATATAG GAGTCCAGCTTCTACCCACTTGTTCCAGTCTATCCACATTTTCCACCAACAGAACGAGTTTACTAGAAACCTCTC AGGAAGAGGAGATCCCATACATGGGCTTGGGGGTGGCTTCCCTCACTGCAGTGTCCGGTCCCCCAGCAGCTCTGG TACATTTAAAGTTAAATTGGTCTCCCCTCAAAAAATGCTTAGACTTAATTATTTTAATTATCCTCACATATACTC CTCCGGCTTCTTTACTGAAGTGTAATTTACACACCATCAAACTTACCATTTGAAAACGTGCTATTCGGTAATCTT TAGTATAATCATAAGGTTCTGCAACCAACCAACACCATTATCTAATTTCACGAACATTTTCATCACCACGAAACA GAAACCCATACCACA

# 2122/2682 FIGURE 1922

 ${\tt GSPPACRSMSCTRAFGWHMTVWDCPVSVLSGASPVEWLGTCRCRGSGSPPACRSMSCCSCPGEGSSLLAQPKSPQ} \\ {\tt KPPHSQLRSLSLA}$ 

#### 2123/2682 FIGURE 1923

GGCAAGCTACTGGCACCTGCTGCTCTCAACTAACCTCCACACAATGGTGTTCGCATTTTGGAAGGTCTTTCTGAT CCTAAGCTGCCTTGCAGGTCAGGTTAGTGTGGTGCAAGTGACCATCCCAGACGGTTTCGTGAACGTGACTGTTGG CTTCCATAAGAAGGAGATGGAGCCAATTTCTATTTACTTTTCTCAAGGTGGACAAGCTGTAGCCATCGGGCAATT TGGAATTTACATCTGCGATGTTAACAACCCCCCAGACTTTCTCGGCCAAAACCAAGGCATCCTCAACGTCAGTGT GTTAGTGAAACCTTCTAAGCCCCTTTGTAGCGTTCAAGGAAGACCAGAAACTGGCCACACTATTTCCCTTTCCTG TCTCTCTGCGCTTGGAACACCTTCCCCTGTGTACTACTGGCATAAACTTGAGGGAAGAGACATCGTGCCAGTGAA AGAAAACTTCAACCCAACCACCGGGATTTTGGTCATTGGAAATCTGACAAATTTTGAACAAGGTTATTACCAGTG TACTGCCATCAACAGACTTGGCAATAGTTCCTGCGAAATCGATCTCACTTCTTCACATCCAGAAGTTGGAATCAT TGTTGGGGCCTTGATTGGTAGCCTGGTAGGTGCCGCCATCATCATCTCTGTTGTGTGCTTCGCAAGGAATAAGGC AAAAGCAAAGGCAAAAGAAAGAAATTCTAAGACCATCGCGGAACTTGAGCCAATGACAAAGATAAACCCAAGGGG AGAAAGCGAAGCAATGCCAAGAGAGACGCTACCCAACTAGAAGTAACTCTACCATCTTCCATTCATGAGACTGG CCCTGATACCATCCAAGAACCAGACTATGAGCCAAAGCCTACTCAGGAGCCTGCCCCAGAGCCTGCCCCAGGATC AGAGCCTATGGCAGTGCCTGACCTTGACATCGAGCTGGAGCTGGAGCCAGAAACGCAGTCGGAATTGGAGCCAGA GCCAGAGCCAGAGCCAGAGTCAGAGCCTGGGGTTGTAGTTGAGCCCTTAAGTGAAGATGAAAAGGGAGTGGTTAA  $\mathsf{GGCA} \underline{\mathsf{TAG}} \mathsf{GCTGGTGGCCTAAGTACAGCATTAATCATTAAGGAACCCATTACTGCCATTTGGAATTCAAATAACCT$ AACCAACCTCCACCTCCTCCATTTTGACCAACCTTCTTCTAACAAGGTGCTCATTCCTACTATGAATCCAG AATAAACACGCCAAGATAACAGCTAAATCAGCAAGGGTTCCTGTATTACCAATATAGAATACTAACAATTTTACT AACACGTAAGCATAACAAATGACAGGGCAAGTGATTTCTAACTTAGTTGAGTTTTGCAACAGTACCTGTGTTGTT GGTGGAGGTTGCAGTGGGCCGAGATTGTGCCACTGCACTCCAACCTGGGTGACAGAGTGAGATTCCATCTGAAAA ACACTTTCAAATATAATTTCCTTCAGTGAATACAAAATGTTGATATCATAGGTGATGTACAATTTAGTTTTGAAT GAGTTATTATGTTATCACTGTGTCTGATGTTATCTACTTTGAAAGGCAGTCCAGAAAAGTGTTCTAAGTGAACTC TTAAGATCTATTTTAGATAATTTCAACTAATTAAATAACCTGTTTTACTGCCTGTACATTCCACATTAATAAAGC GATACCAATCTTATATGAATGCTAATATTACTAAAATGCACTGATATCACTTCTTCCCCCTGTTGAAAAGCTT TCTCATGATCATATTTCACCCACATCTCACCTTGAAGAAACTTACAGGTAGACTTACCTTTTCACTTGTGGAATT 

## 2124/2682 FIGURE 1924

QVSVVQVTIPDGFVNVTVGSNVTLICIYTTTVASREQLSIQWSFFHKKEMEPISIYFSQGGQAVAIGQFKDRITG SNDPGNASITISHMQPADSGIYICDVNNPPDFLGQNQGILNVSVLVKPSKPLCSVQGRPETGHTISLSCLSALGT PSPVYYWHKLEGRDIVPVKENFNPTTGILVIGNLTNFEQGYYQCTAINRLGNSSCEIDLTSSHPEVGIIVGALIG SLVGAAIIISVVCFARNKAKAKAKERNSKTIAELEPMTKINPRGESEAMPREDATQLEVTLPSSIHETGPDTIQE PDYEPKPTQEPAPEPAPGSEPMAVPDLDIELELEPETQSELEPEPEPEPESEPGVVVEPLSEDEKGVVKA

#### 2125/2682 FIGURE 1925

CAAGGATAGAATATTTCCTGTGGTTTTTCAGGTGGTTTTCCAAGATTTGTCATTCAGATTTATAATACCCAACTTA ATTATTTCAGTGACATGGTGAAAGTGTATCAGGATACCATTTCGCTTACTCTCAGAGTTTATGTAGGGCCCTTTT CTTTTATGAACTATGAGTTAGTATTAAAATGAAGGGTTGGGATTTCTTAACTTTTTAGCCATTTAATCTTTTAAC ATGGGATCAAGCAACAGAATGTAGCAGAAGAGTATTATGAAAATGAGAACATTGAAAGATAATGTTGATGCTTGA TTCTTTCACTTAATAAGGTGTCTGAGTATTTAATGATTTTGTTTTTGTAGTTCAATTACCGTAGAACAATCTACTT TTAAAACTAAAGACAAGACAAAAAAGTAGATGTCTCTATAATACATTTATATGAAATTAAATTTTCTTAGTTTAT TTTTGCTTTAGAATGCCAGTTGTAATCAAAGGACCATTGGCAAGACACTGGCCATTAGTAAGGCATCAAACTTTG AGCTTTGCTTTACTTTAAAAAAGTTATACCATGCAAGGATAGAAGTAGACATAGGCATTCACATAATCCCCTGTA CATCCTCCAGAGGGGTTTTGTCAGATGAATTTCCCCCAAAGGGCCTCTTAGTTACCATCAGCTTCTCTTTGGGAC ATATATATTTCTGACTGTGGTCATTTGTTAAGGAGAAGTTTAGCAGACGTTATTAATCAAATACATTTAAGAGAG CTATTGCTTTTCACTTTCTCCCATGATGTAATGCTCTTATAATAACAGGTTTTGTGGGGTCCTCTTTATACAACT ATCTGATGACAATATTCTTCATTCTTGTAAGCTCAGTTAACATCTTTTCACTTCCCATCTGATAAGTGCTAGCTG CGTGAATATATTGTTACTTTTTCTGGCACTGGAATATACAACTATCCATGACAGCAAAATTTGAGGGCCATATT GAGATCACCGGCTGATATGCTGACCATGTAAATATAAGTTTAAATTGCTTAGTTCCACGTTAGAATAGTTTAATC AATTTCTGTCCCAGAAACTGGATATGAAACAGGTTAGATGAGGAAGCTTATATGGAAAAAAATTATCTTTCATCC TCTCCACATATACATTTTCCTGAGACTAGGTCATATGTATATTCATTTTGTACACATTGGGGAATTGGCATAGT AATTTATTCAACAACATTAATTAGCACATTCCCTTGTGACAAATCTGTAAAA

# 2126/2682 FIGURE 1926

RIEYFLWFFRWFPRFVIQIYNTQLNYFSDMVKVYQDTISLTLRVYVGPFWDSVSPFHCTKLQATCI

#### 2127/2682 FIGURE 1927

2128/2682 FIGURE 1928

KKKEYHGSTVIPFNGSHCSNSMILTFF

#### 2129/2682 FIGURE 1929

# 2130/2682 FIGURE 1930

MKGGGRAVRSWGKACFPYKSCCSCWNKDLLFLVSMHFAGFQVPLPHSSDP

#### 2131/2682 FIGURE 1931

AAGATATAAAAGCTCCAGAAACGTTGACTGGGACCACTGGAGACACTGAAGAAGGCAGGGGCCCTTAGAGTCTTG GTTGCCAAACAGATTTGCAGATCAAGGAGAACCCAGGAGTTTCAAAGAAGCGCTAGTAAGGTCTCTGAGATCCTT  ${\tt GCACTAGCTACATCCTCAGGGTAGGAGGAAG}$ GGCCAAAACAGGAGTCCTGGGTGATATCATCATGAGACCCAGCTGTGCTCCTGGATGGTTTTACCACAAGTCCAA TTGCTATGGTTACTTCAGGAAGCTGAGGAACTGGTCTGATGCCGAGCTCGAGTGTCAGTCTTACGGAAACGGAGC CCACCTGGCATCTATCCTGAGTTTAAAGGAAGCCAGCACCATAGCAGAGTACATAAGTGGCTATCAGAGAAGCCA GCCGATATGGATTGGCCTGCACGACCCACAGAAGAGGCAGCAGTGGCAGTGGATTGATGGGGCCATGTATCTGTA  ${\tt CAGATCCTGGCCAAGTCCATGGGTGGGAACAAGCACTGTGCTGAGATGAGCTCCAATAACAACTTTTTAAC}$  ${\tt TTGGAGCAGCAACGAATGCAACAAGCGCCAACACTTCCTGTGCAAGTACCGACCA} {\tt TAG} {\tt AGCAAGAATCAAGATTC}$ TGCTAACTCCTGCACAGCCCCGTCCTCTTCCTTTCTGCTAGCCTGGCTAAATCTGCTCATTATTTCAGAGGGGAA ACCTAGCAAACTAAGAGTGATAAGGGCCCTACTACACTGGCTTTTTTAGGCTTAGAGACAGAAACTTTAGCATTG GCCCAGTAGTGGCTTCTAGCTCTAAATGTTTGCCCCGCCATCCCTTTCCACAGTATCCTTCTTCCCTCCTCCCCT GTCTCTGGCTGTCTCGAGCAGTCTAGAAGAGTGCATCTCCAGCCTATGAAACAGCTGGGTCTTTGGCCATAAGAA GTAAAGATTTGAAGACAGAAGGAAGAAACTCAGGAGTAAGCTTCTAGACCCCTTCAGCTTCTACACCCTTCTGCC CTCTCTCCATTGCCTGCACCCCACCCCAGCCACTCAACTCCTGCTTGTTTTTCCTTTGGCCATAGGAAGGTTTAC 

# 2132/2682 FIGURE 1932

 ${\tt MASRSMRLLLLLSCLAKTGVLGDIIMRPSCAPGWFYHKSNCYGYFRKLRNWSDAELECQSYGNGAHLASILSLKE} \\ {\tt ASTIAEYISGYQRSQPIWIGLHDPQKRQQWQWIDGAMYLYRSWSGKSMGGNKHCAEMSSNNNFLTWSSNECNKRQ} \\ {\tt HFLCKYRP} \\$ 

#### 2133/2682 FIGURE 1933

 $\tt CACCGGTCCCCTTCCTGCCAACGCTGCATTTGGCTCGGGCCCGGTCCATGGCGGCCCCTCGGACCCTGCGCTGA$ GCCCGGAGGCCAGGGCGTCCGGGGCTGCGCCACTTCCGAGGGCCGAGCGCTGCCGGTCCCGGCGGTGCGACACG  $\tt CCGCGCGGAGATGAGGAGGAGGCTGCGCCTACGCAGGGACGCATTGCTCACGCTGCTCCTTGGCGCCTCCCTGGG$ ACCGGCGCCGCCCACGCCTACGGGACCCTTTTGACTTCGCCCGCTATTTGCGCGCCCAAGGACCAGCGGCGGTTTC TCAAGTCGGTGGCAGAGGACTTCGAGCGGCGCCAAGCCGTGCGCCAGACGTGGGGGCGCGGAGGGTCGCGTGCAGG AGGGCGCGCAACCCACTGGCGCCCCTGCTGCGGGCCGAGAGCCTTGCGTATGCGGACATCCTGCTCTGGGCCT TCGACGACACCTTTTTTAACCTAACGCTCAAGGAGATCCACTTTCTAGCCTGGGCCTCAGCTTTCTGCCCCGACG TGCGCTTCGTTTTTAAGGGCGACGCAGATGTGTTCGTGAACGTGGGAAATCTCCTGGAGTTCCTGGCGCCGCGGG ACCCGGCGCAAGACCTGCTTGCTGGTGACGTAATTGTGCATGCGCGGCCCATCCGCACGCGGGCTAGCAAGTACT  ${\tt CCACGCTGCACCGCCTGGCGCGCCTGTGCGCAGGTCGAGCTCTTCCCCATCGACGACGTCTTTCTGGGCATGT}$ GTCTGCAGCGCCTGCGCTCACCCTGCCTTCCGCACCTTTGGCATCCCCCAGCCTTCAGCCG CGCCGCATTTGAGCACCTTCGACCCCTGCTTTTACCGTGAGCTGGTTGTAGTGCACGGGCTCTCGGCCGCTGACA TCTGGCTTATGTGGCGCCTGCTGCACGGGCCGCATGGGCCAGCCTGTGCGCATCCACAGCCTGTCGCTGCAGGCC  $\texttt{CCTTCCAATGGGACTCC} \underline{\textbf{TAG}} \\ \texttt{CTCCCACTACAGCCCCAAGCTCCTAACTCAGACCCAGAATGGAGCCGGTTTCCC}$ AGATTATTGCCGTGTATGTGGTTCTTCCCTGATCACCAGGTGCCTGTCTCCACAGGATCCCAGGGGATGGGGGTT GGCTGGGTGGTAGATGACCATCTCTTGTCCAACAGGTCCCAGAGCAGTGGATATGTCTGGTCCTCCTAGTAGCAC AGAGGTGTGTTCTGGTGTGGTGGCAGGGACTTAGGGAATCCTACCACTCTGCTGGATTTGGAACCCCCTAGGCTG ACGCGGACGTATGCAGAGGCTCTCAAGGCCAGGGCCCCACAGGGAGGTGGAGGGGCTCCGGCCGCCACAGCCTGAA TTCATGAACCTGGCAGGCACTTTGCCATAGCTCATCTGAAAACAGATATTATGCTTCCCACAACCTCTCCTGGGC TCACCTCCTGAACTCACAACAATGCCAGTCTCCCACTGGAGGCTGTATCCCCTCAGAGGAGCCAAGGAATGTC TTCCCCTGAGATGCCACCACTATTAATTTCCCCATATGCTTCAACCACCCCCTTGCTCAAAAAAACCAATACCCAC ACTTACCTTAATACAAACATCCCAGCAACAGCACATGGCAGGCCATTGCTGAGGGCACAGGTGCTTTATTGGAGA  ${\tt GGGGATGTGGGCAGGGGATAAGGAAGGTTCCCCCATTCCAGGAGGATGGGAACAGTCCTGGCTGCCCCTGACAGT}$ CCACACAAACCTGGCTATAAGGCCCAGGAACCATATAGGAGCCTGAGACAGGTCCCCTGCACATTCATCATTAAA CTATACAGGATGAGGCTGTACATGAGTTAATTACAAAAGAGTCATATTTACAAAAATCTGTACACACATTTGAAA AACTCACAAAATTGTCATCTATGTATCACAAGTTGCTAGACCAAAATATTAAAAAATGGGATAAAAATTATAAAAAA AAAAAAAAAAA

#### 2134/2682 FIGURE 1934

MRSATARPRRARREGEGGRHRGPPPDPARSSYPTRVQPRRPTKGTHRRPRLRDPFDFARYLRAKDQRRFPLLI NQPHKCRGDGAPGGRPDLLIAVKSVAEDFERRQAVRQTWGAEGRVQGALVRRVFLLGVPRGAGSGGADEVGEGAR THWRALLRAESLAYADILLWAFDDTFFNLTLKEIHFLAWASAFCPDVRFVFKGDADVFVNVGNLLEFLAPRDPAQ DLLAGDVIVHARPIRTRASKYYIPEAVYGLPAYPAYAGGGGFVLSGATLHRLAGACAQVELFPIDDVFLGMCLQR LRLTPEPHPAFRTFGIPQPSAAPHLSTFDPCFYRELVVVHGLSAADIWLMWRLLHGPHGPACAHPQPVAAGPFQW DS

#### 2135/2682 FIGURE 1935

GCCCCTCCCACTGCCTTTCCTTCTTCCCGCGAGTCAGAAGCTTCGCGAGGGCCCCAGAGAGGCCGGTGGGGTGGGCC ACCCTACGCCAGCTCCGGGCGGGAGAAAGCCCACCCTCTCCCGCGCCCCAGGAAACCGCCGGCGTTCGGCGCTGC  $\mathsf{GCAGAGCC}$ CCCTGGGGCTGCTGCAGGCCATTAAGCTGTACCTGCGGAGGCAGCGGCTGCTGCGGGACCTGCGCCCCTTCCCAG CGCCCCCACCCACTGGTTCCTTGGGCACCAGAAGTTTATTCAGGATGATAACATGGAGAAGCTTGAGGAAATTA TTGAAAAATACCCTCGTGCCTTCCCTTTCTGGATTGGGCCCTTTCAGGCATTTTTCTGTATCTATGACCCAGACT ATGCAAAGACACTTCTGAGCAGAACAGATCCCAAGTCCCAGTACCTGCAGAAATTCTCACCTCCACTTCTTGGAA AAGGACTAGCGGCTCTAGACGGACCCAAGTGGTTCCAGCATCGTCGCCTACTAACTCCTGGATTCCATTTTAACA TCCTGAAAGCATACATTGAGGTGATGGCTCATTCTGTGAAAATGATGCTGGATAAGTGGGAGAAGATTTGCAGCA CTCAGGACACAAGCGTGGAGGTCTATGAGCACATCAACTCGATGTCTCTGGATATAATCATGAAATGCGCTTTCA GCAAGGAGACCAACTGCCAGACAAACAGCACCCATGATCCTTATGCAAAAGCCATATTTGAACTCAGCAAAATCA TATTTCACCGCTTGTACAGTTTGTTGTATCACAGTGACATAATTTTCAAACTCAGCCCTCAGGGCTACCGCTTCC TAAAGCAGGATAACACTCCGAAGAGGAAGTACCAGGATTTTCTGGATATTGTCCTTTCTGCCAAGGATGAAAGTG GTAGCAGCTTCTCAGATATTGATGTACACTCTGAAGTGAGCACATTCCTGTTGGCAGGACATGACACCTTGGCAG CAAGCATCTCCTGGATCCTTTACTGCCTGGCTCTGAACCCTGAGCATCAAGAGAGATGCCGGGAGGAGGTCAGGG GCATCCTGGGGGATGGGTCTTCTATCACTTGGGACCAGCTGGGTGAGATGTCGTACACCACAATGTGCATCAAGG AGACGTGCCGATTGATTCCTGCAGTCCCGTCCATTTCCAGAGATCTCAGCAAGCCACTTACCTTCCCAGATGGAT GCACATTGCCTGCAGGGATCACCGTGGTTCTTAGTATTTGGGGTCTTCACCACAACCCTGCTGTCTGGAAAAACC CAGCTGGATCAAGGAACTGCATTGGGCAGGAGTTTGCCATGATTGAGTTAAAGGTAACCATTGCCTTGATTCTGC TCCACTTCAGAGTGACTCCAGACCCCACCAGGCCTCTTACTTTCCCCAACCATTTTATCCTCAAGCCCAAGAATG GAAGTTAAATTTACAGCTAATGATCCAAGCAGATAGAAAGGGATCAATGTATGGTGGGAGGATTGGAGGTTGGTG GGATAGGGGTCTCTGTGAAGAGATCCAAAATCATTTCTAGGTACACAGTGTGTCAGCTAGATCTGTTTCTATATA ACTTTGGGAGATTTTCAGATCTTTTCTGTTAAACTTTCACTACTATTAATGCTGTATACACCAATAGACTTTCAT ATATTTTCTGTTGTTTTTAAAATAGTTTTCAGAATTATGCAAGTAATAAGTGCATGTATGCTCACTGTCAAAAAT TCCCAACACTAGAAAATCATGTAGAATAAAAATTTTAAATCTCACTTCACTTAGCCGACATTCCATGCCCTGACC AATCCTACTGCTTTTCCTAAAAACAGAATAATTTGGTGTGCATTCTTTCAGACTTTTTCCTATACATTTTATATG TAGAAATGTAGCAATGTATTTGTATAGATGTGATCATTCCTATATTGTTATTGATTTTTTCACTTAATAAAAAT TCACCTTATTCCTTAAAA

## 2136/2682 FIGURE 1936

MEFSWLETRWARPFYLAFVFCLALGLLQAIKLYLRRQRLLRDLRPFPAPPTHWFLGHQKFIQDDNMEKLEEIIEK YPRAFPFWIGPFQAFFCIYDPDYAKTLLSRTDPKSQYLQKFSPPLLGKGLAALDGPKWFQHRRLLTPGFHFNILK AYIEVMAHSVKMMLDKWEKICSTQDTSVEVYEHINSMSLDIIMKCAFSKETNCQTNSTHDPYAKAIFELSKIIFH RLYSLLYHSDIIFKLSPQGYRFQKLSRVLNQYTDTIIQERKKSLQAGVKQDNTPKRKYQDFLDIVLSAKDESGSS FSDIDVHSEVSTFLLAGHDTLAASISWILYCLALNPEHQERCREEVRGILGDGSSITWDQLGEMSYTTMCIKETC RLIPAVPSISRDLSKPLTFPDGCTLPAGITVVLSIWGLHHNPAVWKNPKVFDPLRFSQENSDQRHPYAYLPFSAG SRNCIGQEFAMIELKVTIALILLHFRVTPDPTRPLTFPNHFILKPKNGMYLHLKKLSEC

#### 2137/2682 FIGURE 1937

 $\tt GTTTTTTCCCTTCTGAGCA{\color{red} \underline{ATG}} GAGCTTACCATCTTATCCTGAGACTGGCCATTTACATCCTGACATTTCCCT$ TGTACCTGCTGAACTTTCTGGGCTTGTGGAGCTGGATATGCAAAAAATGGTTCCCCTACTTCTTGGTGAGGTTCA  $\tt CTGTGATATACAACGAACAGATGGCAAGCAAGAAGCGGGAGCTCTTCAGTAACCTGCAGGAGTTTGCGGGCCCCT$ CCGGGAAACTCTCCCTGCTGGAAGTGGGCTGTGGCACGGGGGCCCAACTTCAAGTTCTACCCACCTGGGTGCAGGG TGACCTGTATTGACCCCAACCCCAACTTTGAGAAGTTTTTGATCAAGAGCATTGCAGAGAACCGACACCTGCAGT TTGAGCGCTTTGTGGTAGCTGCCGGGGAGAACATGCACCAGGTGGCTGATGGCTCTGTGGATGTGGTGGTCTGCA CCCTGGTGCTGTGCTCTGTGAAGAACCAGGAGCGGATTCTCCGCGAGGTGTGCAGAGTGCTGAGACCGGGAGGGG CTTTCTATTCATGGAGCATGTGGCAGCTGAGTGTTCGACTTGGAATTACTTCTGGCAACAAGTCCTGGATCCTG AGCTGAAGCTGCAGCACATCCAGGCCCCACTGTCCTGGGAGTTGGTGCGCCCTCATATCTATGGATATGCTGTGA  $\mathtt{AA}\underline{\mathbf{TAG}}\mathtt{TGTGAGCTGGCAGTTAAGAGCTGAATGGCTCAAAGAATTTAAAAGCTTCAGTTTTACATTTAAAATGCTAA$ GCCGGTCTTGAACTCCTGGGCTCAAGTGATTCTCCCACCTTGACCTCCTAAATTGTTGGGATTACAGGTGTGAGA CAGTGCACCTGGCCGAAATAGCTCAAGTTTCTGAAAAACAAATCTGAATCTATTTGTTATTCTTAGCGTCACTGG TCTGGCTTTCAGAATTAACATACAAGGTTGCCACACCTAGTTCTGCCCAGCTTTATGTCTTTTATTCCAGTATTC CACCAAAGTTTGTTTTCCTGCATTCCAGTTCTCAAGTCTTAAGATAAAGATTGTACTTGACAGTTTAGTATATCC ATAAAACTATTTGAGGTGGTTAAGGTTCTTGGGTTCATTTTCCTTAATACTTTGCTGAATATTGTAGATTGTAGG CAATGAAAAGTCTACTAAATTAGGAAAACCTTGAATAATTAGGTATCCTAGGTAAGAGCCCCTAAACATCAAGC AATCTGTGAGTCTGTAAAGAAATAATATTTTTTGGATTATTCTTATCTAATTCCACCCCTGTTGGAAGATGATT AGGGTTTAATATTTTCTGCAATGGTTTGTAGGAATTTTAATAAATGTAGTATATTTTCTGAGATGATTTTGTAAA AGTACTATTTTAAATATCAAATCAACCAATAAATTCACATTTGTGTTAGGAACAG

# 2138/2682 FIGURE 1938

MELTIFILRLAIYILTFPLYLLNFLGLWSWICKKWFPYFLVRFTVIYNEQMASKKRELFSNLQEFAGPSGKLSLL EVGCGTGANFKFYPPGCRVTCIDPNPNFEKFLIKSIAENRHLQFERFVVAAGENMHQVADGSVDVVVCTLVLCSV KNQERILREVCRVLRPGGAFYFMEHVAAECSTWNYFWQQVLDPAWHLLFDGCNLTRESWKALERASFSKLKLQHI QAPLSWELVRPHIYGYAVK

#### 2139/2682 FIGURE 1939

AAAGAAACCCGAGACGTTCCGAAGTCAACGCAAGCAAAGGGGAGTGCGGGTCGGGGAGGAATATTCTTTTGGAAA CGTAATATTGGCCTTGGGGCTCTCCAGCCCTTTGGGACTTCCAATGGGATCTTAGAAGCAGCCGAAGCAGCGTGA GGGCGGCAGCCCAGGGCCACGATTTGAACGCTCTGCCTTGCAGCTCTTCTGGACCGAGGAGCCCAAAGCCC TACCCTCACCATTCACCAGGTCCTGTGGGAAGAGCAGCGTGGAGGTGGGCTGAGGTTAGAAGGTGCAGAGCGTGG AAGAAGATTGTGAGCTGAGTATTGGACATCTGTTCTTGAATAGTCCCTGGGCCTGCCATAGGAAAGGAAGTTCTC  ${\tt CAGGGTTACAGTTCTTATCCGCGTGAATACAC} {\color{red} {\bf ATG}} {\tt CCTCTGTTACGAAAAATTAATCAGGTGCTGCTGTTCCTTC}$ TGATCGTGACCCTCTGTGTGATTCTGTATAAGAAAGTTCATAAGGGGACTGTGCCCAAGAATGACGCAGATGATG AATCCGAGACTCCTGAAGAACTGGAAGAAGAGATTCCTGTGGTGATTTGTGCTGCAGCAGGGAGGATGGGTGCCA CTATGGCTGCCATCAATAGCATCTACAGCAACACTGACGCCAACATCTTGTTCTATGTAGTGGGACTCCGGAATA CTCTGACTCGAATACGAAAATGGATTGAACATTCCAAACTGAGAGAAATAAACTTTAAAATCGTGGAATTCAACC CGATGGTCCTCAAAGGGAAGATCAGACCAGACTCATCGAGGCCTGAATTGCTCCAGCCTCTGAACTTTGTTCGAT TTTATCTCCCTCTACTTATCCACCAACACGAGAAAGTCATCTATTTGGACGATGATGTAATTGTACAAGGTGATA TCCAAGAACTGTATGACACCACCTTGGCCCTGGGCCACGCGGCGCTTTCTCAGATGACTGCGATTTGCCCTCTG CTCAGGACATAAACAGACTCGTGGGACTTCAGAACACATATATGGGCTATCTGGACTACCGGAAGAAGGCCATCA AGGACCTTGGCATCAGCCCCAGCACCTGCTCTTTCAATCCTGGTGTGATTGTTGCCAACATGACAGAATGGAAGC ACCAGCGCATCACCAAGCAATTGGAGAAATGGATGCAAAAGAATGTGGAGGAAAACCTCTATAGCAGCTCCCTGG GAGGAGGGTGGCCACCTCCCCAATGCTGATTGTGTTTCATGGGAAATATTCCACAATTAACCCCCTGTGGCACA TAAGGCACCTGGGCTGGAATCCAGATGCCAGATATTCGGAGCATTTTCTGCAGGAAGCTAAATTACTCCACTGGA ATGGAAGACATAAACCTTGGGACTTCCCTAGTGTTCACAACGACTTATGGGAAAGCTGGTTTGTTCCTGACCCTG CAGGGATATTTAAACTCAATCACCATAGC<u>TGA</u>TATAACTCTACCCTTAAAATATTCCCTGTATAGAAATGTGGAA TTGTCCCTTTGTAGCCAACTATAACATTGTTCTTTATGAATATTACCTTTGATACATATGATCCACAATATAAAA ACCAAAAACTACTGTGTGCAAATTATACCTTGGACCATATAGGCATTGATTAACTTCTTTAAGTACATGTGATAA CTATGGAAATCAAGATTATGTGACTGAAAAACATAAAGGAAGAGACCCATCTAGATAACAGCAATCAACCTGCTT AATTCTGAATGACAATTATATCCACAAATTTTTAAAACTTCTACATGTATTTTTCACATGAAGATCTCCTTAACA GGTTGCCAACCTTTTCTTTTATAAAACTATTACATTTAAAATATGGACGTCTGAAAAATAAAATATTCATCATTT ТТАСААААААААААААААААААААААААААА

#### 2140/2682 FIGURE 1940

MALLRKINQVLLFLLIVTLCVILYKKVHKGTVPKNDADDESETPEELEEEIPVVICAAAGRMGATMAAINSIYSN TDANILFYVVGLRNTLTRIRKWIEHSKLREINFKIVEFNPMVLKGKIRPDSSRPELLQPLNFVRFYLPLLIHQHE KVIYLDDDVIVQGDIQELYDTTLALGHAAAFSDDCDLPSAQDINRLVGLQNTYMGYLDYRKKAIKDLGISPSTCS FNPGVIVANMTEWKHQRITKQLEKWMQKNVEENLYSSSLGGGVATSPMLIVFHGKYSTINPLWHIRHLGWNPDAR YSEHFLQEAKLLHWNGRHKPWDFPSVHNDLWESWFVPDPAGIFKLNHHS

#### 2141/2682 FIGURE 1941

TTATATCATTAAGGAAATAGTAACCTTCTCTCTCCAATATGCATGACATTTTTAGACAATGCAATTGTGGCACT GGCACTTATTTCAGTGAAGAAAACTTTGTGGTTCTATGGCATTCATCATTTGACAAATGCAAGCATCTTCCTTA TCAATCAGCTCCTATTGAACTTACTAGCACTGACTGTGGAATCCTTAAGGGCCCCATTACATTTCTGAAGAAGAAA GCTAAGATGAAGGACATGCCACTCCGAATTCATGTGCTACTTGGCCTAGCTATCACTACACTAGTACAAGCCGTA GATAAAAAGTGGATTGTCCACGGTTATGTACGTGTGAAATCAGGCCTTGGTTTACACCCAGATCCATTTATATG CTTCTCCTACAGACTAACAATATTGCAAAAATTGAATACTCCACAGACTTTCCAGTAAACCTTACTGGCCTGGAT TTATCTCAAAACAATTTATCTTCAGTCACCAATATTAATGTAAAGAAGATGCCTCAGCTCCTTTCTGTGTACCTA CACAACTTGCTTTCTACAATTTCACCTGGAGCCTTTATTGGCCTACATAATCTTCTTCGACTTCATCTCAATTCA **AATAGATTGCAGATGATCAACAGTAAGTGGTTTGATGCTCTTCCAAATCTAGAGATTCTGATGATTGGGGAAAAT** CCAATTATCAGAATCAAAGACATGAACTTTAAGCCTCTTATCAATCTTCGCAGCCTGGTTATAGCTGGTATAAAC CTCACAGAAATACCAGATAACGCCTTGGTTGGACTGGAAAACTTAGAAAGCATCTCTTTTTACGATAACAGGCTT TCCATCGATAGTCTTGCTGTGGATAACCTGCCAGATTTAAGAAAAATAGAAGCTACTAACAACCCTAGATTGTCT TACATTCACCCCAATGCATTTTTCAGACTCCCCAAGCTGGAATCACTCATGCTGAACAGCAATGCTCTCAGTGCC CTGTACCATGGTACCATTGAGTCTCTGCCAAACCTCAAGGAAATCAGCATACACAGTAACCCCATCAGGTGTGAC TGTGTCATCCGTTGGATGAACATGAACAAAACCAACATTCGATTCATGGAGCCAGATTCACTGTTTTGCGTGGAC CCACCTGAATTCCAAGGTCAGAATGTTCGGCAAGTGCATTTCAGGGACATGATGGAAATTTGTCTCCCTCTTATA GCTCCTGAGAGCTTTCCTTCTAATCTAAATGTAGAAGCTGGGAGCTATGTTTCCTTTCACTGTAGAGCTACTGCA TATGTCCATTCTGAGGGAACACTAGATATAAATGGCGTAACTCCCAAAGAAGGGGGTTTATATACTTGTATAGCA TCTTTGAATATTAAAATAAGAGATATTCAGGCCAATTCAGTTTTGGTGTCCTGGAAAGCAAGTTCTAAAATTCTC AAATCTAGTGTTAAATGGACAGCCTTTGTCAAGACTGAAAATTCTCATGCTGCGCAAAGTGCTCGAATACCATCT GATGTCAAGGTATATAATCTTACTCATCTGAATCCATCAACTGAGTATAAAATTTGTATTGATATTCCCACCATC TATCAGAAAAACAGAAAAAAAATGTGTAAATGTCACCACCAAAGGTTTGCACCCTGATCAAAAAAGAGTATGAAAAG AATAATACCACAACACTTATGGCCTGTCTTGGAGGCCTTCTGGGGGATTATTGGTGTGATATGTCTTATCAGCTGC GGTGAGCTTTATCCTCCTCTGATAAATCTCTGGGAAGCAGGAAAAGAAAAAGTACATCACTGAAAGTAAAAGCA ACTGTTATAGGTTTACCAACAAATATGTCC<u>TAA</u>AAACCACCAAGGAAACCTACTCCAAAAATGAACAAAAA

#### 2142/2682 FIGURE 1942

MKDMPLRIHVLLGLAITTLVQAVDKKVDCPRLCTCEIRPWFTPRSIYMEASTVDCNDLGLLTFPARLPANTQILL LQTNNIAKIEYSTDFPVNLTGLDLSQNNLSSVTNINVKKMPQLLSVYLEENKLTELPEKCLSELSNLQELYINHN LLSTISPGAFIGLHNLLRLHLNSNRLQMINSKWFDALPNLEILMIGENPIIRIKDMNFKPLINLRSLVIAGINLT EIPDNALVGLENLESISFYDNRLIKVPHVALQKVVNLKFLDLNKNPINRIRRGDFSNMLHLKELGINNMPELISI DSLAVDNLPDLRKIEATNNPRLSYIHPNAFFRLPKLESLMLNSNALSALYHGTIESLPNLKEISIHSNPIRCDCV IRWMNMKTNIRFMEPDSLFCVDPPEFQGQNVRQVHFRDMMEICLPLIAPESFPSNLNVEAGSYVSFHCRATAEP QPEIYWITPSGQKLLPNTLTDKFYVHSEGTLDINGVTPKEGGLYTCIATNLVGADLKSVMIKVDGSFPQDNNGSL NIKIRDIQANSVLVSWKASSKILKSSVKWTAFVKTENSHAAQSARIPSDVKVYNLTHLNPSTEYKICIDIPTIYQ KNRKKCVNVTTKGLHPDQKEYEKNNTTTLMACLGGLLGIIGVICLISCLSPEMNCDGGHSYVRNYLQKPTFALGE LYPPLINLWEAGKEKSTSLKVKATVIGLPTNMS

#### 2143/2682 FIGURE 1943

GTGCGGTCCGTCGGTGGCCTAGAGATGCTGCTGCCGCGGTTGCAGTTGTCGCGCACGCCTCTGCCCGCCAGCCCG  $\tt CTCCACCGCCGTAGCGCCCGAGTGTCGGGGGGGGCGCCCGAGTCGGGCC\underline{ATG} AGGCCGGGAACCGCGCTACAGGC$ CGTGCTGCTGGCCGTGCTGGTGGGGCTGCGGGCCGCGACGGGTCGCCTGAGTGGGCAGCCAGTCTGCCG GGGAGGGACACAGAGGCCTTGTTATAAAGTCATTTACTTCCATGATACTTCTCGAAGACTGAACTTTGAGGAAGC CAAAGAAGCCTGCAGGAGGGATGGAGGCCAGCTAGTCAGCATCGAGTCTGAAGATGAACAGAAACTGATAGAAAA GTTCATTGAAAACCTCTTGCCATCTGATGGTGACTTCTGGATTGGGCTCAGGAGGCGTGAGGAGAAACAAAGCAA TAGCACAGCCTGCCAGGACCTTTATGCTTGGACTGATGGCAGCATATCACAATTTAGGAACTGGŢATGTGGATGA GCCGTCCTGCGGCAGCGAGGTCTGCGTGGTCATGTACCATCAGCCATCGGCACCCGCTGGCATCGGAGGCCCCTA CATGTTCCAGTGGAATGATGACCGGTGCAACATGAAGAACAATTTCATTTGCAAATATTCTGATGAGAAACCAGC AGTTCCTTCTAGAGAAGCTGAAGGTGAGGAAACAGAGCTGACAACACCTGTACTTCCAGAAGAAACACAGGAAGA AGATACCAAAAAAACATTTAAAGAAAGTAGAGAAGCTGCCTTGAATCTGGCCTACATCCTAATCCCCAGCATTCC CCTTCTCCTCCTCCTTGTGGTCACCACAGTTGTATGTTGGGTTTGGATCTGTAGAAAAAGAAAACGGGAGCAGCC AGACCCTAGCACAAAGAAGCAACACCATCTGGCCCTCTCCTCACCAGGGAAACAGCCCGGACCTAGAGGTCTA CAATGTCATAAGAAAACAAAGCGAAGCTGACTTAGCTGAGACCCGGCCAGACCTGAAGAATATTTCATTCCGAGT GTGTTCGGGAGAAGCCACTCCCGATGACATGTCTTGTGACTATGACAACATGGCTGTGAACCCATCAGAAAGTGG GTTTGTGACTCTGGTGAGCGTGGAGTGGATTTGTGACCAATGACATTTATGAGTTCTCCCCAGACCAAATGGG GAGGAGTAAGGAGTCTGGATGGGTGGAAAATGAAATATATGGTTAT<u>TAG</u>GACATATAAAAAACTGAAACTGACAA CAATGGAAAAGAAATGATAAGCAAAATCCTCTTATTTTCTATAAGGAAAATACACAGAAGGTCTATGAACAAGCT TAGATCAGGTCCTGTGGATGAGCATGTGGTCCCCACGACCTCCTGTTGGACCCCCACGTTTTGGCTGTATCCTTT ATCCCAGCCAGTCATCCAGCTCGACCTTATGAGAAGGTACCTTGCCCAGGTCTGGCACATAGTAGAGTCTCAATA AATGTCACTTGGTTGGTTGTATCCAACTTTTAAGGGACAGAGCTTTACCTGGCAGTGATAAAGATGGGCTGTGGA TTTTCAAAGCCCACATATGGTAGCACAGGTTGGCCTGTGCATCGGCAATTCTCATATCTGTTTTTTCAAAGAAT AAAATCAAATAAAGAGCAGG

## 2144/2682 FIGURE 1944

MRPGTALQAVLLAVLLVGLRAATGRLLSGQPVCRGGTQRPCYKVIYFHDTSRRLNFEEAKEACRRDGGQLVSIES EDEQKLIEKFIENLLPSDGDFWIGLRRREEKQSNSTACQDLYAWTDGSISQFRNWYVDEPSCGSEVCVVMYHQPS APAGIGGPYMFQWNDDRCNMKNNFICKYSDEKPAVPSREAEGEETELTTPVLPEETQEEDTKKTFKESREAALNL AYILIPSIPLLLLVVTTVVCWVWICRKRKREQPDPSTKKQHTIWPSPHQGNSPDLEVYNVIRKQSEADLAETRP DLKNISFRVCSGEATPDDMSCDYDNMAVNPSESGFVTLVSVESGFVTNDIYEFSPDQMGRSKESGWVENEIYGY

#### 2145/2682 FIGURE 1945

GGCACGAGGGATGCAAGGAGATGAGACAGTTAGATTTACTTCCTCTTTTCTAATCTGAGAGGTTTCATGTTGAAG CTCTACCTTTCCCTTGGTGTGCTCTGGGTGGCCCAGATGCTACTGGCTGCCAGTTTTGAGACGCTGCAGTGTGAG GGACCTGTCTGCACTGAGGAGAGCAGCTGCCACACGGAGGATGACTTGACTGATGCAAGGGAAGCTGGCTTCCAG GTCAAGGCCTACACTTTCAGTGAACCCTTCCACCTGATTGTGTCCTATGACTGGCTGATCCTCCAAGGTCCAGCC AAGCCAGTTTTTGAAGGGGACCTGCTGGTTCTGCGCTGCCAGGCCTGGCAAGACTGGCCACTGACTCAGGTGACC TTCTACCGAGATGGCTCAGCTCTGGGTCCCCCGGGCCTAACAGGGAATTCTCCATCACCGTGGTACAAAAGGCA GACAGCGGGCACTACCACTGCAGTGGCATCTTCCAGAGCCCTGGTCCTGGGATCCCAGAAACAGCATCTGTTGTG GCTATCACAGTCCAAGAACTGTTTCCAGCGCCAATTCTCAGAGCTGTACCCTCAGCTGAACCCCAAGCAGGAAGC CCCATGACCCTGAGTTGTCAGACAAAGTTGCCCCTGCAGAGGTCAGCTGCCCGCCTCCTCTTCTCCTTCTACAAG GATGGAAGGATAGTGCAAAGCAGGGGGCTCTCCTCAGAATTCCAGATCCCCACAGCTTCAGAAGATCACTCCGGG TCATACTGGTGTGAGGCAGCCACTGAGGACAACCAAGTTTGGAAACAGAGCCCCCAGCTAGAGATCAGAGTGCAG GGTGCTTCCAGCTCTGCACCTCCCACATTGAATCCAGCTCCTCAGAAATCAGCTGCTCCAGGAACTGCTCCT GAGGAGGCCCCTGGGCCTCCGCCGCCAACCCCATCTTCTGAGGATCCAGGCTTTTCTTCTCCTCTGGGG ATGCCAGATCCTCATCTGTATCACCAGATGGGCCTTCTTCTCAAACACATGCAGGATGTGAGAGTCCTCCTCGGT  $\texttt{CACCTGCTCATGGAGTTGAGGGAATTATCTGGCCACCAGAAGCCTGGGACCACAAAGGCTACTGCTGAA} \underline{\textbf{TAG}} \textbf{AAG}$ TAAACAGTTCATCCATGATCTCACTTAACCACCCCAATAAATCTGATTCTTTATTTTCTCTTCCTGCCCCCACA TATGCATAAGTACTTTTACAAGTTGTCCCAGTGTTTTGTTAGAATAATGTAGTTAGGTGAGTGTAAATAAATTTA TATAAAGTGAGAATTAGAGTTTAGCTATAATTGTGTATTCTCTCTTAACACAACAGAATTCTGCTGTCTAGATCA GGAATTTCTATCTGTTATATCGACCAGAATGTTGTGATTTAAAGAGAACTAATGGAAGTGGATTGAATACAGCAG TCTCAACTGGGGGCAATTTTGCCCCCCAGAGGACATTGGGCAATGTTTGGAGACATTTTGGTCATTATACTTGGG GGGTTGGGGGATGTGTGTGTGTGCTACTGGCATCCAGTAAATAGAAGCCAGGGGTGCCGCTAAACATCCTA TAATGCACAGGGCAGTACCCCACAACGAAAAATAATCTGGCCCCAAAATGTCAGTTGTACTGAGTTTGAGAAACCC CAGCCTAATGAAACCCTAGGTGTTGGGCTCTGGAATGGGACTTTGTCCCTTCTAATTATTATCTCTTTCCAGCCT CATTCAGCTATTCTTACTGACATACCAGTCTTTAGCTGGTGCTATGGTCTGTTCTTTAGTTCTAGTTTGTATCCC CTCAAAAGCCATTATGTTGAAATCCTAATCCCCAAGGTGATGGCATTAAGAAGTGGGCCTTTGGGAAGTGATTAG ATCAGGAGTGCAGAGCCCTCATGATTAGGATTAGTGCCCTTATTTAAAAAAGGCCCCAGAGAGCTAACTCACCCTT CCACCATATGAGGACGTGGCAAGAAGATGACATGTATGAGAACCAAAAAACAGCTGTCGCCAAACACCCGACTCTG AAAAA

## 2146/2682 FIGURE 1946

MKLGCVLMAWALYLSLGVLWVAQMLLAASFETLQCEGPVCTEESSCHTEDDLTDAREAGFQVKAYTFSEPFHLIV SYDWLILQGPAKPVFEGDLLVLRCQAWQDWPLTQVTFYRDGSALGPPGPNREFSITVVQKADSGHYHCSGIFQSP GPGIPETASVVAITVQELFPAPILRAVPSAEPQAGSPMTLSCQTKLPLQRSAARLLFSFYKDGRIVQSRGLSSEF QIPTASEDHSGSYWCEAATEDNQVWKQSPQLEIRVQGASSSAAPPTLNPAPQKSAAPGTAPEEAPGPLPPPPTPS SEDPGFSSPLGMPDPHLYHQMGLLLKHMQDVRVLLGHLLMELRELSGHQKPGTTKATAE

#### 2147/2682 FIGURE 1947

AGGAATAAAACCACAGAAGAAAATGGAGAGAAGAGGGGACTGAAATATTCAGAGCTTCTGCAGTGATTCCCAGCAAG GACAAAGCCGCCTTTTTCCTGAGTTATGAGGAGCTTCTGCAGAGGCGCCTGGGCAAGTACGAGCACAGCATCAGC GTGCGGCCCCAGCAGCTGTCCGGGAGGCTGAGCGTGGACTGAATATCCTGGAGAGCGCGGGCATCGCATCCCTG GAGGTGCTGCCGCTTCACAACAGCAGGCAGAGGGGGCAGTGGGCGCGGGGAAGATGATTCTGGGCCTCCCCCATCT ACTGTCATTAACCAAAATGAAACATTTGCCAACATAATTTTTAAACCTACTGTAGTACAACAAGCCAGGATTGCC CAGAATGGAATTTTGGGAGACTTTATCATTAGATATGACGTCAATAGAGAACAGAGCATTGGGGACATCCAGGTT CTAAATGGCTATTTTGTGCACTACTTTGCTCCTAAAGACCTTCCTCCTTTACCCAAGAATGTGGTATTCGTGCTT GACAGCAGTGCTTCTATGGTGGGAACCAAACTCCGGCAGACCAAGGATGCCCTCTTCACAATTCTCCATGACCTC CGACCCCAGGACCGTTTCAGTATCATTGGATTTTCCAACCGGATCAAAGTATGGAAGGACCACTTGATATCAGTC ACTCCAGACAGCATCAGGGATGGGAAAGTGTACATTCACCATATGTCACCCACTGGAGGCACAGACATCAACGGG GCCCTGCAGAGGGCCATCAGGCTCCTCAACAAGTACGTGGCCCACAGTGGCATTGGAGACCGGAGCGTGTCCCTC ATCGTCTTCCTGACGGATGGGAAGCCCACGGTCGGGGAGACGCACACCCTCAAGATCCTCAACACACCCGAGAG GCCGCCCGAGGCCAAGTCTGCATCTTCACCATTGGCATCGGCAACGACGTGGACTTCAGGCTGCTGGAGAAACTG GATGAAATCAGGACCCCGCTCCTCTGACATCCGCATCGATTATCCCCCCAGCTCAGTGGTGCAGGCCACCAAG ACCCTGTTCCCCAACTACTTCAACGGCTCGGAGATCATCATTGCGGGGAAGCTGGTGGACAGGAAGCTGGATCAC CTGCACGTGGAGGTCACCGCCAGCAACAGTAAGAAATTCATCATCCTGAAGACAGATGTGCCTGTGCGGCCTCAG AAGGCAGGGAAAGATGTCACAGGAAGCCCCAGGCCTGGAGGCGATGGAGAGGGGGACCCCAACCACACCGAGCGT CTCTGGAGCTACCTCACCACAAAGGAGCTGCTGAGCTCCTGGCTGCAAAGTGACGATGAACCGGAGAAGGAGCGG CTGCGGCAGCGGGCCCAGGCCCTGGCTGTGAGCTACCGCTTCCTCACTCCCTTCACCTCCATGAAGCTGAGGGGG CCGGTCCCACGCATGGACGGCCTGGAGGAGGCCCACGGCATGTCGGCTGCCATGGGACCCGAACCGGTGGTGCAG AGCGTGCGAGGAGCTGGCACGCAGCCAGGACCTTTGCTCAAGAAGCCATACCAGCCAAGAATTAAAATCTCTAAA ACATCAGTTCGTGGCTTCAGAAGGGAAGAACAGATTTTTTCAAATGTCATGAAATTTCCTTTTTGCCAGCATCCTG GAACTA<u>TAA</u>TAAAAATTCAGAGGAAAGAACAACCTATGACTGGGTTTTGTTCTGCTGTGCCAGATCATCCTCTG GAAGTCTTGATTGTTGCCTTTCTGCTGCTGTGCTGTACGTGCAAGTTCCTAAAGCCAGGGACATCCCGGAGATGA GGAATGCCAGAAAAGCTTCCTCTTGGATGCTGCCTGGAGTAATGACTTTTTGACCCTCCCCTCTTTTTTGGAGCA AGCACTATCTTTCCTTGTAAAGGAATTTGGACAATTTGAGTAGAAATGGTGTGGTATGTGCACATAGAAACTCTC AGAAAACTGTCAGATGAGCTAGACAGTTGTCCTCTATCTCCATGGGTCCCGCATCCCAAGGATCGAACCAACAAC AGATCAAAAATACGTGAAAAAGGAATTGCATCTGTATTGAATGTGTACGGACTTTTTTTCTTGTCTTTGTTCCTT AAAGTGTATAGAAAGGCTGCGTGCAGTGGCTAATGTCTGTAATCCCAGCACTTTGAGAGGCCGAGGCAGGTGGAT CACCTGAGGTCAGGAGTTCGAGACCAGCCTGGCCAACGTGGTGAAACCCCATCTCTACTAAAAATACAATAATTA GCTGGGCATGGTGGTGCACGCCTGTAATCCCAGCTATTCGGGAGGCTGAGGCAGGAGAATCGCTTGAACCCAGGA GGCAGAGATTGCAGTGAACCGAGATTGCACCATTGCACTCCAGCCTGGGTGACAGAGTGAACCTCCGTCTCAAAA ACAAAATAAATAAATAAGAATAAATT

# 2148/2682 FIGURE 1948

MVGTKLRQTKDALFTILHDLRPQDRFSIIGFSNRIKVWKDHLISVTPDSIRDGKVYIHHMSPTGGTDINGALQRA IRLLNKYVAHSGIGDRSVSLIVFLTDGKPTVGETHTLKILNNTREAARGQVCIFTIGIGNDVDFRLLEKLSLENC GLTRRVHEEEDAGSQLIGFYDEIRTPLLSDIRIDYPPSSVVQATKTLFPNYFNGSEIIIAGKLVDRKLDHLHVEV TASNSKKFIILKTDVPVRPQKAGKDVTGSPRPGGDGEGDPNHTERLWSYLTTKELLSSWLQSDDEPEKERLRQRA QALAVSYRFLTPFTSMKLRGPVPRMDGLEEAHGMSAAMGPEPVVQSVRGAGTQPGPLLKKPYQPRIKISKTSVRG FRREEQIFSNVMKFPFASILEL

#### 2149/2682 FIGURE 1949

AGAAGCTGGCAACATGTCACACCTGGAAATTGTTTTTCAACATTAATACTATTATTTGGCAGTAATCCAGATTGC TTTTGCCACCAACCTGAAGACATATAGAGGCAGAAGGACAGGAATAATTCTATTTGTTTCCTGTTTTGAAACTTC CATCTGTAAGGCTATCAAAAGGAGATGTGAGAGAGGGTATTGAGTCTGGCCTGACAATGCAGTTCTTAAACCAAA GGTCCATTATGCTTCTCCTCTCTGAGAATCCTGACTTACCTCAACAACGGAGACATGGCACAGTAGCCAGCTTGG AGACTTCTCAGCCAATGCTCTGAGATCAAGTCGAAGACCCAATATACAGGGTTTTGAGCTCATCTTCATCATTCA TATGAGGAAATAAGTGGTAAAATCCTTGGAAATACA**ATG**AGACTCATCAGAAACATTTACATATTTTGTAGTATT GTTATGACAGCAGAGGGTGATGCTCCAGAGCTGCCAGAAGAAAGGGAACTGATGACCAACTGCTCCAACATGTCT CTAAGAAAGGTTCCCGCAGACTTGACCCCAGCCACAACGACACTGGATTTATCCTATAACCTCCTTTTTCAACTC CAGAGTTCAGATTTTCATTCTGTCTCCAAACTGAGAGTTTTGATTCTATGCCATAACAGAATTCAACAGCTGGAT CTCAAAACCTTTGAATTCAACAAGGAGTTAAGATATTTAGATTTGTCTAATAACAGACTGAAGAGTGTAACTTGG TATTTACTGGCAGGTCTCAGGTATTTAGATCTTTCTTTTAATGACTTTTGACACCATGCCTATCTGTGAGGAAGCT GGCAACATGTCACACCTGGAAATCCTAGGTTTGAGTGGGGCAAAAATACAAAAATCAGATTTCCAGAAAATTGCT CATCTGCATCTAAATACTGTCTTCTTAGGATTCAGAACTCTTCCTCATTATGAAGAAGGTAGCCTGCCCATCTTA AACACAACAAAACTGCACATTGTTTTACCAATGGACACAAATTTCTGGGTTCTTTTGCGTGATGGAATCAAGACT TCAAAAATATTAGAAATGACAAATATAGATGGCAAAAGCCAATTTGTAAGTTATGAAATGCAACGAAATCTTAGT TTAGAAAATGCTAAGACATCGGTTCTATTGCTTAATAAAGTTGATTTACTCTGGGACGACCTTTTCCTTATCTTA CAATTTGTTTGGCATACATCAGTGGAACACTTTCAGATCCGAAATGTGACTTTTGGTGGTAAGGCTTATCTTGAC CACAATTCATTTGACTACTCAAATACTGTAATGAGAACTATAAAATTGGAGCATGTACATTTCAGAGTGTTTTAC ATTCAACAGGATAAAATCTATTTGCTTTTGACCAAAATGGACATAGAAAACCTGACAATATCAAATGCACAAATG CCACACATGCTTTTCCCGAATTATCCTACGAAATTCCAATATTTAAATTTTGCCAATAATATCTTAACAGACGAG TTGTTTAAAAGAACTATCCAACTGCCTCACTTGAAAACTCTCATTTTGAATGGCAATAAACTGGAGACACTTTCT TTAGTAAGTTGCTTTGCTAACAACACACCCTTGGAACACTTGGATCTGAGTCAAAATCTATTACAACATAAAAAT GATGAAAATTGCTCATGGCCAGAAACTGTGGTCAATATGAATCTGTCATACAATAAATTGTCTGATTCTGTCTTC AGGTGCTTGCCCAAAAGTATTCAAATACTTGACCTAAATAATAACCAAATCCAAACTGTACCTAAAGAGACTATT CATCTGATGGCCTTACGAGAACTAAATATTGCATTTAATTTTCTAACTGATCTCCCTGGATGCAGTCATTTCAGT AGACTTTCAGTTCTGAACATTGAAATGÄACTTCATTCTCAGCCCATCTCTGGATTTTGTTCAGAGCTGCCAGGAA TATTCAGAGGTCATGATGGTTGGATGGTCAGATTCATACACCTGTGAATACCCTTTAAACCTAAGGGGAATTAGG TTAAAAGACGTTCATCTCCACGAATTATCTTGCAACACAGCTCTGTTGATTGTCACCATTGTGGTTATTATGCTA GTTCTGGGGTTGGCTGTGGCCTTCTGCTGTCTCCACTTTGATCTGCCCTGGTATCTCAGGATGCTAGGTCAATGC ACACAAACATGGCACAGGGTTAGGAAAACAACCCAAGAACAACTCAAGAGAAATGTCCGATTCCACGCATTTATT TTGATTTGCCTTTATGAAAGCTACTTTGACCCTGGCAAAAGCATTAGTGAAAATATTGTAAGCTTCATTGAGAAA AGCTATAAGTCCATCTTTGTTTTGTCTCCCAACTTTGTCCAGAATGAGTGGTGCCATTATGAATTTTACTTTGCC CACCACAATCTCTTCCATGAAAATTCTGATCATATAATTCTTATCTTACTGGAACCCATTCCATTCTATTGCATT TGTGGGCTTTTCTGGGCAAACCTTCGAGCTGCTATTAATGTTAATGTATTAGCCACCAGAGAAATGTATGAACTG CAGACATTCACAGAGTTAAATGAAGAGTCTCGAGGTTCTACAATCTCTCTGATGAGAACAGATTGTCTA<u>TAA</u>AAT CCCACAGTCCTTGGGAAGTTGGGGACCACATACACTGTTGGGATGTACATTGATACAACCTTTATGATGGCAATT TG

#### 2150/2682 FIGURE 1950

MRLIRNIYIFCSIVMTAEGDAPELPEERELMTNCSNMSLRKVPADLTPATTTLDLSYNLLFQLQSSDFHSVSKLR VLILCHNRIQQLDLKTFEFNKELRYLDLSNNRLKSVTWYLLAGLRYLDLSFNDFDTMPICEEAGNMSHLEILGLS GAKIQKSDFQKIAHLHLNTVFLGFRTLPHYEEGSLPILNTTKLHIVLPMDTNFWVLLRDGIKTSKILEMTNIDGK SQFVSYEMQRNLSLENAKTSVLLLNKVDLLWDDLFLILQFVWHTSVEHFQIRNVTFGGKAYLDHNSFDYSNTVMR TIKLEHVHFRVFYIQQDKIYLLLTKMDIENLTISNAQMPHMLFPNYPTKFQYLNFANNILTDELFKRTIQLPHLK TLILNGNKLETLSLVSCFANNTPLEHLDLSQNLLQHKNDENCSWPETVVNMNLSYNKLSDSVFRCLPKSIQILDL NNNQIQTVPKETIHLMALRELNIAFNFLTDLPGCSHFSRLSVLNIEMNFILSPSLDFVQSCQEVKTLNAGRNPFR CTCELKNFIQLETYSEVMMVGWSDSYTCEYPLNLRGIRLKDVHLHELSCNTALLIVTIVVIMLVLGLAVAFCCLH FDLPWYLRMLGQCTQTWHRVRKTTQEQLKRNVRFHAFISYSEHDSLWVKNELIPNLEKEDGSILICLYESYFDPG KSISENIVSFIEKSYKSIFVLSPNFVQNEWCHYEFYFAHHNLFHENSDHIILILLEPIPFYCIPTRYHKLKALLE KKAYLEWPKDRRKCGLFWANLRAAINVNVLATREMYELQTFTELNEESRGSTISLMRTDCL

# FIGURE 1951

 $\tt TTTTTGTTAGTGACGTCCTGTTTCCTCTGAAGAGTAATAGTTGGAATCAAAAGAGTCAACGCA \underline{ATG} AACTGTTAT$ GAAATGAATACGACTAGTCATCACATCGGCCAGCTAAGATCTGATTTAGACAATGGAAACAATTCTTTCCAGTAC AAGCTTTTGGGAGCTGGAAGTACTTTTATCATTGATGAAAGAACAGGTGACATATATGCCATACAGAAG CTTGATAGAGAGGAGCGATCCCTCTACATCTTAAGAGCCCAGGTAATAGACATCGCTACTGGAAGGGCTGTGGAA CCTGAGTCTGAGTTTGTCATCAAAGTTTCGGATATCAATGACAATGAACCAAAATTCCTAGATGAACCTTATGAG GCCATTGTACCAGAGATGTCTCCAGAAGGAACATTAGTTATCCAGGTGACAGCAAGTGATGCTGACGATCCCTCA GTCATAAGAATATCTTCTAAAATGGATAGAGAACTGCAAGATGAGTATTGGGTAATCATTCAAGCCAAGGACATG ATATTTAAAGAAAGTTTATACCGCTTGACTGTCTCTGAATCTGCACCCACTGGGACTTCTATAGGAACAATCATG GCATATGATAATGACATAGGAGAATGCAGAAATGGATTACAGCATTGAAGAGGATGATTCGCAAACATTTGAC TACGGTATTAGAGCAAAAGTTAAAAACCATCATGTTCCTGAGCAGCTCATGAAGTACCACACTGAGGCTTCCACC ACTTTCATTAAGATCCAGGTGGAAGATGTTGATGAGCCTCCTCTTTTCCTCCTTCCATATTATGTATTTGAAGTT TTTGAAGAAACCCCACAGGGATCATTTGTAGGCGTGGTGTCTGCCACAGACCCAGACAATAGGAAATCTCCTATC AGGTATTCTATTACTAGGAGCAAAGTGTTCAATATCAATGATAATGGTACAATCACTACAAGTAACTCACTGGAT CGTGAAATCAGTGCTTGGTACAACCTAAGTATTACAGCCACAGAAAAATACAATATAGAACAGATCTCTTCGATC CCACTGTATGTGCAAGTTCTTAACATCAATGATCATGCTCCTGAGTTCTCTCAATACTATGAGACTTATGTTTGT GAAAATGCAGGCTCTGGTCAGGTAATTCAGACTATCAGTGCAGTGGATAGAGATGAATCCATAGAAGAGCACCAT TTTTACTTTAATCTATCTGTAGAAGACACTAACAATTCAAGTTTTACAATCATAGATAATCAAGATAACACAGCT GTCATTTTGACTAATAGAACTGGTTTTAACCTTCAAGAAGAACCTGTCTTCTACATCTCCATCTTAATTGCCGAC CAGACCTGCCAGTACCAGGAGCTTGTGCTTTCCATGGGATTCAAGACAGAAGTCATCATTGCTATTCTCATTTGC ATTATGATCATATTTGGGTTTATTTTTTTGACTTTGGGTTTAAAACAACGGAGAAAACAGATTCTATTTCCTGAG AAAAGTGAAGATTTCAGAGAGAATATATTCCAATATGATGATGAAGGGGGTGGAGAAGAAGATACAGAGGCCTTT GATATAGCAGAGCTGAGGAGTAGTACCATAATGCGGGAACGCAAGACTCGGAAAACCACAAGCGCTGAGATCAGG GAAGCTAATACTGATCCGTGTGCCCCTCCTTTTGATTCCCTCCAGACCTACGCTTTTGAGGGAACAGGGTCATTA GCTGGATCCCTGAGCTCCTTAGAATCAGCAGTCTCTGATCAGGATGAAAGCTATGATTACCTTAATGAGTTGGGA  ${\tt CCTCGCTTTAAAAGATTAGCATGCATGTTTGGTTCTGCAGTGCAGTCAAATAAT{\tt TAG}{\tt GGCTTTTTACCATCAAAA}$ TTTTTAAAAGTGCTAATGTGTATTCGAACCCAATGGTAGTCTTAAAGAGTTTTGTGCCCTGGCTCTATGGCGGGG GTCATTGAACAGAGATGTGGGGAGAAATGTAAACAATCAGCTCACAGGCATCAATACAACCAGATTTGAAGTAAA ATAATTTAGGAAGATATTAAAAGTAGATGAGAGGACACAAGATGTAGTCGATCCTTATGCGATTATATCATTATT TACTTAGGAAAGAGTAAAAATACCAAACGAGAAAATTTAAAGGAGCAAAAATTTGCAAGTCAAATAGAAATGTAC AAATCGAGATAACATTTACATTTCTATCATATTGACATGAAAATTGAAAATGTATAGTCAGAGAAATTTTCATGA AAACTAGAAAGTATGATAAACAACAGTTGGAGGAATCCATGGAAAATAGACGAGAAAATGTAAATAAGGCTTTCT GGGGATCACAGAACTTTTGTATGAATAAAAGCCTTATAAAACCAGCTCTGGCATATGACTAAAATATTCCTCTAC TATTTTCAATGTCATCTAATGCAAACGCTCAACC

#### 2152/2682 FIGURE 1952

MNCYLLLRFMLGIPLLWPCLGATENSQTKKVKQPVRSHLRVKRGWVWNQFFVPEEMNTTSHHIGQLRSDLDNGNN SFQYKLLGAGAGSTFIIDERTGDIYAIQKLDREERSLYILRAQVIDIATGRAVEPESEFVIKVSDINDNEPKFLD EPYEAIVPEMSPEGTLVIQVTASDADDPSSGNNARLLYSLLQGQPYFSVEPTTGVIRISSKMDRELQDEYWVIIQ AKDMIGQPGALSGTTSVLIKLSDVNDNKPIFKESLYRLTVSESAPTGTSIGTIMAYDNDIGENAEMDYSIEEDDS QTFDIITNHETQEGIVILKKKVDFEHQNHYGIRAKVKNHHVPEQLMKYHTEASTTFIKIQVEDVDEPPLFLLPYY VFEVFEETPQGSFVGVVSATDPDNRKSPIRYSITRSKVFNINDNGTITTSNSLDREISAWYNLSITATEKYNIEQ ISSIPLYVQVLNINDHAPEFSQYYETYVCENAGSGQVIQTISAVDRDESIEEHHFYFNLSVEDTNNSSFTIIDNQ DNTAVILTNRTGFNLQEEPVFYISILIADNGIPSLTSTNTLTIHVCDCGDSGSTQTCQYQELVLSMGFKTEVIIA ILICIMIIFGFIFLTLGLKQRRKQILFPEKSEDFRENIFQYDDEGGGEEDTEAFDIAELRSSTIMRERKTRKTTS AEIRSLYRQSLQVGPDSAIFRKFILEKLEEANTDPCAPPFDSLQTYAFEGTGSLAGSLSSLESAVSDQDESYDYL NELGPRFKRLACMFGSAVQSNN

#### 2153/2682 FIGURE 1953

## 2154/2682 FIGURE 1954

MKMLLLCLGLTLVCVHAEEASSTGRNFNVEKINGEWHTIILASDKREKIEEHGNFRLFLEQIHVLENSLVLKVH TVRDEECSELSMVADKTEKAGEYSVTYDGFNTFTIPKTDYDNFLMAHLINEKDGETFQLMGLYGREPDLSSDIKE RFAQLCEEHGILRENIIDLSNANRCLQARE

#### 2155/2682 FIGURE 1955

CTCAGACTACAGGTGTGAGCCACCATGCCCGGCCTTCTCCTTTAAGTATTGTTGGCCTCACTTTCCCAACTAAAA TGGGAGCTCACTAAGAACAAAGGCTGTTCCTTCATCTTATACTTAGTACCTTGAAAGGGCCTACCACACAGTAGG TGGTCACGTGTTAGTCTGTTAGGTCTTTTGGATTTTCTAGGTAGACAATCACATCGATTGCAAATAATAGTCTTT AGCAATGATGGAGGGCACCCCAATCTTATTATGCTCAATACTCATTAATTTATGCAATAGGAATGTAAAGTACCT ACTGCAGGTCAAATCCTGTGCCTGGGGATAACAGTGTAACACATTTGAGATCTTTTCCTGTCCACTGAAATGCCT GAGCAGTAGCAGTATTTCAGTAAACACGACAATGCTGAGAATATCACCAAATTCTCCAGACTTGCTGAAGTGTTC CTTTGGGATCCTGGTTCCCAAAAAGTATGGACATAGGTCCCTGCTGGTGGCCCCAGGTTCCAGGCCATCAGTAAG GTTGGGGGCTGCAGACTGGACCACTGCACCGTGGAGCAGAGGTGAAGAAACCAAGACGCAGAGAGGCCCAAGCCCC TTGCCTTGGGTCACACAGCCAAAGGAGGCAGAGCCAGAACTCACAACCAGATCCAGAGGCAACAGGGAC<u>ATG</u>GCC ACCTGGGACGAAAAGGCAGTCACCCGCAGGGCCAAGGTGGCTCCCGCTGAGAGGATGAGCAAGTTCTTAAGGCAC TTCACGGTCGTGGGAGACGACTACCATGCCTGGAACATCAACTACAAGAAATGGGAGAATGAAGAGGAGGAGGAG GAGGAGGAGCAGCCACCACCACCAGTCTCAGGCGAGGTCATCATCATCTGCTTGGTGGTTCTGGATGCCCTC CTGGTGCTTGCTGAGCTCATCCTGGACCTGAAGATCATCCAGCCCGACAAGAATAACTATGCTGCCATGGTATTC CACTACATGAGCATCACCATCTTGGTCTTTTTTATGATGGAGATCATCTTTAAATTATTTGTCTTCCGCCTGGAG TTCCAGGAGCACCAGTTTGAGGCTCTGGGCCTGATTCTGCTCCGGCTGTGGCGGGTGGCCCGGATCATCAAT GGGATTATCATCTCAGTTAAGACACGTTCAGAACGGCAACTCTTAAGGTTAAAACAGATGAATGTACAATTGGCC GCCAAGATTCAACACCTTGAGTTCAGCTGCTCTGAGAAGGAACAAGAAATTGAAAGACTTAACAAACTATTGCGA TGTGCTGTCACGAGAGGAACAGCTGCCCCTCCTGGGCCGCTTGGTGAGAGGTTTGGTTTGATACCTCTGCCTCCC TCCTGCCAGCATGGATTCTGGGTGGACACAGCCTTGTGGAAGGTCCAGTACCACCAAGAGCTGCCCATCCACTCC CACCCCACACTGTATCAAATGTATCACATTTTCTCATGTTGAACACTTTAGCCTTAATTGAAAATGAGCAACAAA GCTGGACAATTGCTAGTTGTATATAAAATTTAATCTCACCGAATGTACAGTTTTCAAATTTCACGTGTATATTAA GGAACTGATGCATCTGAGCATTCTGAAAGAAAGAAAAAAGCTACTTTAGCTGCCACCCCATTCTAGAAAAAGTC TCTTATTTCAAGCTGTTCTAAATAGCTTCGTCTCAGTTTCCCCAAAAGGGGTACCCAGGCCCCTCCTCTGTGTG CCCCAGCTGCATCAGCCAGCTTCTAGGTGGCTCCATTGTTTTCTGCCACCTGACAACATTTTTCCTCAATTACTG AAA

# 2156/2682 FIGURE 1956

MATWDEKAVTRRAKVAPAERMSKFLRHFTVVGDDYHAWNINYKKWENEEEEEEEQPPPTPVSGEVIIICLVVLD ALLVLAELILDLKIIQPDKNNYAAMVFHYMSITILVFFMMEIIFKLFVFRLEFFHHKFEILDAVVVVVSFILDIV LLFQEHQFEALGLLILLRLWRVARIINGIIISVKTRSERQLLRLKQMNVQLAAKIQHLEFSCSEKEQEIERLNKL LRQHGLLGEVN

#### 2157/2682 FIGURE 1957

# 2158/2682 FIGURE 1958

MIETYNQTSPRSAATGLPISMKIFMYLLTVFLITQMIGSALFAVYLHRRLDKIEDERNLHEDFVFMKTIQRCNTG ERSLSLLNCEEIKSQFEGFVKDIMLNKEETKKENSFEMQKGDQNPQIAAHVISEASSKTTSVLQWAEKGYYTMSN NLVTLENGKQLTVKRQGLYYIYAQVTFCSNREASSQAPFIASLCLKSPGRFERILLRAANTHSSAKPCGQQSIHL GGVFELQPGASVFVNVTDPSQVSHGTGFTSFGLLKL

# FIGURE 1959

GGGCTGCAGGTTTCGACCCGCGCTGGCGAGTCATGAGCGCCAAGTTTCCCACTGGCGCGCAAACTTGAGTTACTT TTGAGCGTGGATACTGGCGAAGAGGCTGCGGGCGGTATTAGCGTTTGCAGCGACTTGGCTCGGGCAGCTGACCCC AAAGTGTCTGTCTTCCTCCTCTGCTTGTCTCTAGGCTCTGAAACTGCGGCCGCCCACCGGACGCTTCTGGAGCAG GTAGCAGCATGCAGCCGCCTCCAAGTCTGTGCGGACGCGCCCTGGTTGCGCTGGTTCTTGCCTGCGGCCTGTCGC GGATCTGGGGAGAGAGAGAGGCTTCCCGCCCGACAGGGCCACTCCGCTTTTGCAAACCGCAGAGATAATGACGC CACCCACTAAGACCTTATGGCCCAAGGGTTCCAACGCCAGTCTGGCGCGGTCGTTGGCACCTGCGGAGGTGCCTA AAGGAGACAGGACGGCAGGATCTCCGCCACGCACCATCTCCCCTCCCCGTGCCAAGGACCCATCGAGATCAAGG AGACTTTCAAATACATCAACACGGTTGTGTCCTGCCTTGTGTTCGTGCTGGGGATCATCGGGAACTCCACACTTC TGAGAATTATCTACAAGAACAAGTGCATGCGAAACGGTCCCAATATCTTGATCGCCAGCTTGGCTCTGGGAGACC TGCTGCACATCGTCATTGACATCCCTATCAATGTCTACAAGCTGCTGGCAGAGGACTGGCCATTTGGAGCTGAGA TGTGTAAGCTGGTGCCTTTCATACAGAAAGCCTCCGTGGGAATCACTGTGCTGAGTCTATGTGCTCTGAGTATTG ACAGATATCGAGCTGTTGCTTCTTGGAGTAGAATTAAAGGAATTGGGGTTCCAAAATGGACAGCAGTAGAAATTG TTTTGATTTGGGTGGTCTCTGTGGTTCTGGCTGTCCCTGAAGCCATAGGTTTTGATATAATTACGATGGACTACA AAGGAAGTTATCTGCGAATCTGCTTCATCCCGTTCAGAAGACAGCTTTCATGCAGTTTTACAAGACAGCAA AAGATTGGTGGCTGTTCAGTTTCTATTTCTGCTTGCCATTGGCCATCACTGCATTTTTTTATACACTAATGACCT GTGAAATGTTGAGAAAGAAAGTGGCATGCAGATTGCTTTAAATGATCACCTAAAGCAGAGACGGGAAGTGGCCA AAACCGTCTTTTGCCTGGTCCTTTTGCCCTCTGCTGGCTTCCCCTTCACCTCAGCAGGATTCTGAAGCTCA CTCTTTATAATCAGAATGATCCCAATAGATGTGAACTTTTGAGCTTTCTGTTGGTATTGGACTATATTGGTATCA ACATGGCTTCACTGAATTCCTGCATTAACCCAATTGCTCTGTATTTGGTGAGCAAAAGATTCAAAAACTGCTTTA AGGCTGGGCCACATGTTGGAAATAAGCTAGTAATGTTGTTTTCTGTCAATATTGAATGTGATGGTACAGTAAACC AAAACCCAACAATGTGGCCAGAAAGAAAGACAACAATAATAAT<u>TAA</u>TTCACACACCATATGGATTCTATTTATAAAT CAC

#### 2160/2682 FIGURE 1960

MQPPPSLCGRALVALVLACGLSRIWGEERGFPPDRATPLLQTAEIMTPPTKTLWPKGSNASLARSLAPAEVPKGD RTAGSPPRTISPPPCQGPIEIKETFKYINTVVSCLVFVLGIIGNSTLLRIIYKNKCMRNGPNILIASLALGDLLH IVIDIPINVYKLLAEDWPFGAEMCKLVPFIQKASVGITVLSLCALSIDRYRAVASWSRIKGIGVPKWTAVEIVLI WVVSVVLAVPEAIGFDIITMDYKGSYLRICLLHPVQKTAFMQFYKTAKDWWLFSFYFCLPLAITAFFYTLMTCEM LRKKSGMQIALNDHLKQRREVAKTVFCLVLVFALCWLPLHLSRILKLTLYNQNDPNRCELLSFLLVLDYIGINMA SLNSCINPIALYLVSKRFKNCFKAGPHVGNKLVMLFSVNIECDGTVNQNPTMWPERKSNNN

#### 2161/2682 FIGURE 1961

 $\texttt{CGGCTCCGTT} \underline{\textbf{ATG}} \texttt{GCGACCCGCAGCCCTGGCGTCGTGATTAGTGATGAACCAGGTTATGACCTTGATTTATT}$ TTGCATACCTAATCATTATGCTGAGGATTTGGAAAGGGTGTTTATTCCTCATGGACTAATTATGGACAGGACTGA ACGTCTTGCTCGAGATGTGATGAAGGAGATGGGAGGCCATCACATTGTAGCCCTCTGTGTGCTCAAGGGGGGGCTA TAAATTCTTTGCTGACCTGCTGGATTACATCAAAGCACTGAATAGAAATAGTGATAGATCCATTCCTATGACTGT AGATTTTATCAGACTGAAGAGCTATTGTAATGACCAGTCAACAGGGGACATAAAAGTAATTGGTGGAGATGATCT CTCAACTTTAACTGGAAAGAATGTCTTGATTGTGGAAGATATAATTGACACTGGCAAAACAATGCAGACTTTGCT TTCCTTGGTCAGGCAGTATAATCCAAAGATGGTCAAGGTCGCAAGCTTGCTGGTGAAAAAGGACCCCACGAAGTGT TGGATATAAGCCAGACTTTGTTGGATTTGAAATTCCAGACAAGTTTGTTGTAGGATATGCCCTTGACTATAATGA ATACTTCAGGGATTTGAATCATGTTTGTGTCATTAGTGAAACTGGAAAAGCAAAATACAAAGCC<u>TAA</u>GATGAGAG TTCAAGTTGAGTTTGGAAACATCTGGAGTCCTATTGACATCGCCAGTAAAATTATCAATGTTCTAGTTCTGTGGC CATCTGCTTAGTAGAGCTTTTTGCATGTATCTTCTAAGAATTTTATCTGTTTTTGTACTTTAGAAATGTCAGTTGC TGCATTCCTAAACTGTTTATTTGCACTATGAGCCTATAGACTATCAGTTCCCTTTGGGCCGATTGTTTAACT TGTAAATGAAAAATTCTCTTAAACCACAGCACTATTGAGTGAAACATTGAACTCATATCTGTAAGAAATAAAGA GAAGATATATTAGTTTTTAATTGGTATTTTAATTTTTATATATGCAGGAAAGAATAGAAGTGATTGAATATTGT TAATTATACCACCGTGTGTTAGAAAAGTAAGAAGCAGTCAATTTTCACATCAAAGACAGCATCTAAGAAGTTTTG TTCTGTCCTGGAATTATTTTAGTAGTGTTTCAGTAATGTTGACTGTATTTTCCAACTTGTTCAAATTATTACCAG TGAATCTTTGTCAGCAGTTCCCTTTTAAATGCAAATCAATAAATTCCCAAAAATTT

## 2162/2682 FIGURE 1962

MATRSPGVVISDDEPGYDLDLFCIPNHYAEDLERVFIPHGLIMDRTERLARDVMKEMGGHHIVALCVLKGGYKFF ADLLDYIKALNRNSDRSIPMTVDFIRLKSYCNDQSTGDIKVIGGDDLSTLTGKNVLIVEDIIDTGKTMQTLLSLV RQYNPKMVKVASLLVKRTPRSVGYKPDFVGFEIPDKFVVGYALDYNEYFRDLNHVCVISETGKAKYKA

# FIGURE 1963A

 ${\tt GATCCCATCGCAGCTACCGCG} \underline{{\tt ATG}} {\tt AGAGGCGCTCGCGGCGCCTGGGATTTTCTCTGCGTTCTGCTCCTACTGCTT}$ TCAGACTTAATAGTCCGCGTGGGCGACGAGATTAGGCTGTTATGCACTGATCCGGGCTTTGTCAAATGGACTTTT CTTGTTGACCGCTCCTTGTATGGGAAAGAAGACAACGACACGCTGGTCCGCTGTCCTCTCACAGACCCAGAAGTG ACCAATTATTCCCTCAAGGGGTGCCAGGGGAAGCCTCTTCCCAAGGACTTGAGGTTTATTCCTGACCCCAAGGCG TCAGTGCTGTCGGAAAATTCATCCTGAAAGTGAGGCCAGCCTTCAAAGCTGTGCCTGTTGTGTCTCAAA GCAAGCTATCTTCTTAGGGAAGGGGAAGAATTCACAGTGACGTGCACAATAAAAGATGTGTCTAGTTCTGTGTAC TCAACGTGGAAAAGAGAAAACAGTCAGACTAAACTACAGGAGAAATATAATAGCTGGCATCACGGTGACTTCAAT TATGAACGTCAGGCAACGTTGACTATCAGTTCAGCGAGAGTTAATGATTCTGGAGTGTTCATGTGTTATGCCAAT AATACTTTTGGATCAGCAAATGTCACAACAACCTTGGAAGTAGTAGATAAAGGATTCATTAATATCTTCCCCATG ATAAACACTACAGTATTTGTAAACGATGGAGAAAATGTAGATTTGATTGTTGAATATGAAGCATTCCCCAAACCT GAACACCAGCAGTGGATCTATATGAACAGAACCTTCACTGATAAATGGGAAGATTATCCCAAGTCTGAGAATGAA AGTAATATCAGATACGTAAGTGAACTTCATCTAACGAGATTAAAAGGCACCGAAGGAGGCACTTACACATTCCTA GTGTCCAATTCTGACGTCAATGCTGCCATAGCATTTAATGTTTATGTGAATACAAAACCAGAAATCCTGACTTAC GACAGGCTCGTGAATGGCATGCTCCAATGTGTGGCAGCAGGATTCCCAGAGCCCACAATAGATTGGTATTTTTGT CCAGGAACTGAGCAGAGATGCTCTGCTTCTGTACTGCCAGTGGATGTGCAGACACTAAACTCATCTGGGCCACCG TTTGGAAAGCTAGTGGTTCAGAGTTCTATAGATTCTAGTGCATTCAAGCACAATGGCACGGTTGAATGTAAGGCT CACACCCTGTTCACTCCTTTGCTGATTGGTTTCGTAATCGTAGCTGGCATGATGTGCATTATTGTGATGATTCTG ACCTACAAATATTTACAGAAACCCATGTATGAAGTACAGTGGAAGGTTGTTGAGGAGATAAATGGAAACAATTAT GTTTACATAGACCCAACACCTCCTTATGATCACAAATGGGAGTTTCCCAGAAACAGGCTGAGTTTTGGGAAA ACTGTCGCTGTAAAGATGCTCAAGCCGAGTGCCCATTTGACAGAACGGGAAGCCCTCATGTCTGAACTCAAAGTC CTGAGTTACCTTGGTAATCACATGAATATTGTGAATCTACTTGGAGCCTGCACCATTGGAGGCCCCACCCTGGTC CAGGAAGATCATGCAGAAGCTGCACTTTATAAGAATCTTCTGCATTCAAAGGAGTCTTCCTGCAGCGATAGTACT ATAGGCTCATACATAGAAAGAGATGTGACTCCCGCCATCATGGAGGATGACGAGTTGGCCCCTAGACTTAGAAGAC TTGCTGAGCTTTTCTTACCAGGTGGCAAAGGGCATGGCTTTCCTCGCCTCCAAGAATTGTATTCACAGAGACTTG GCAGCCAGAAATATCCTCCTTACTCATGGTCGGATCACAAAGATTTGTGATTTTGGTCTAGCCAGAGACATCAAG AATGATTCTAATTATGTGGTTAAAGGAAACGCTCGACTACCTGTGAAGTGGATGGCACCTGAAAGCATTTTCAAC TGTGTATACACGTTTGAAAGTGACGTCTGGTCCTATGGGATTTTTCTTTGGGAGCTGTTCTCTTTAGGAAGCAGC CACGCACCTGCTGAAATGTATGACATAATGAAGACTTGCTGGGATGCAGATCCCCTAAAAAAGACCAACATTCAAG CAAATTGTTCAGCTAATTGAGAAGCAGATTTCAGAGAGCACCAATCATATTTACTCCAACTTAGCAAACTGCAGC CCCAACCGACAGAAGCCCGTGGTAGACCATTCTGTGCGGATCAATTCTGTCGGCAGCACCGCTTCCTCCCAG GCTTCCATGATGGTTATTTTCTTTTCTTTCAACTTGCATCCAACTCCAGGATAGTGGGCACCCCACTGCAATCCT GTCTTTCTGAGCACACTTTAGTGGCCGATGATTTTTGTCATCAGCCACCATCCTATTGCAAAGGTTCCAACTGTA ACTGGGGGCCAGAGTCCTTTCCAAGGCTTCTCCAATTCTGCCCAAAAATATGGTTGATAGTTTACCTGAATAAAT GGTAGTAATCACAGTTGGCCTTCAGAACCATCCATAGTAGTATGATGATACAAGATTAGAAGCTGAAAACCTAAG TCCTTTATGTGGAAAACAGAACATCATTAGAACAAAGGACAGAGTATGAACACCTGGGCTTAAGAAATCTAGTAT TTCATGCTGGGAATGAGACATAGGCCATGAAAAAATGATCCCCAAGTGTGAACAAAAGATGCTCTTCTGTGGAC CACTGCATGAGCTTTTATACTACCGACCTGGTTTTTAAATAGAGTTTGCTATTAGAGCATTGAATTGGAGAGAAG

#### 2164/2682 FIGURE 1963B

GCCTCCCTAGCCAGCACTTGTATATACGCATCTATAAATTGTCCGTGTTCATACATTTGAGGGGAAAACACCATA AGGTTTCGTTTCTGTATACAACCCTGGCATTATGTCCACTGTGTATAGAAGTAGATTAAGAGCCATATAAGTTTG AAGGAAACAGTTAATACCATTTTTTAAGGAAACAATATAACCACAAAGCACAGTTTGAACAAAATCTCCTCTTTT AGCTGATGAACTTATTCTGTAGATTCTGTGGAACAAGCCTATCAGCTTCAGAATGGCATTGTACTCAATGGATTT GATGCTGTTTGACAAAGTTACTGATTCACTGCATGGCTCCCACAGGAGTGGGAAAACACTGCCATCTTAGTTTGG ATTCTTATGTAGCAGGAAATAAAGTATAGGTTTAGCCTCCTTCGCAGGCATGTCCTGGACACCGGGCCAGTATCT ATATATGTGTATGTACGTTTGTATGTGTGTAGACAAATATTTGGAGGGGTATTTTTGCCCTGAGTCCAAGAGGGT CCTTTAGTACCTGAAAAGTAACTTGGCTTTCATTATTAGTACTGCTCTTGTTTCTTTTCACATAGCTGTCTAGAG TAGCTTACCAGAAGCTTCCATAGTGGTGCAGAGGAAGTGGAAGGCATCAGTCCCTATGTATTTGCAGTTCACCTG CACTTAAGGCACTCTGTTATTTAGACTCATCTTACTGTACCTGTTCCTTAGACCTTCCATAATGCTACTGTCTCA CTGAAACATTTAAATTTTACCCTTTAGACTGTAGCCTGGATATTATTCTTGTAGTTTACCTCTTTAAAAACAAAA CAAAACAAAACAAAAAACTCCCCTTCCTCACTGCCCAATATAAAAGGCAAATGTGTACATGGCAGAGTTTGTGTG TTGTCTTGAAAGATTCAGGTATGTTGCCTTTATGGTTTCCCCCTTCTACATTTCTTAGACTACATTTAGAGAACT GTGGCCGTTATCTGGAAGTAACCATTTGCACTGGAGTTCTATGCTCTCGCACCTTTCCAAAGTTAACAGATTTTG GGGTTGTGTTGTCACCCAAGAGATTGTTTGTCTTGCCATACTTTGTCTGAAAAATTCCTTTGTGTTTCTATTGACTT CAATGATAGTAAGAAAAGTGGTTGTTAGTTATAGATGTCTAGGTACTTCAGGGGCACTTCATTGAGAGTTTTGTC TTGCCATACTTTGTCTGAAAAATTCCTTTGTGTTTCTATTGACTTCAATGATAGTAAGAAAAGTGGTTGTTAGTT ATAGATGTCTAGGTACTTCAGGGGCACTTCATTGAGAGTTTTGTCAATGTCTTTTGAATATTCCCAAGCCCATGA GTCCTTGAAAATATTTTTTATATATACAGTAACTTTATGTGTAAATACATAAGCGGCGTAAGTTTAAAGGATGTT GGTGTTCCACGTGTTTTATTCCTGTATGTTGTCCAATTGTTGACAGTTCTGAAGAATTC

#### 2165/2682 FIGURE 1964

MRGARGAWDFLCVLLLLRVQTGSSQPSVSPGEPSPPSIHPGKSDLIVRVGDEIRLLCTDPGFVKWTFEILDETN
ENKQNEWITEKAEATNTGKYTCTNKHGLSNSIYVFVRDPAKLFLVDRSLYGKEDNDTLVRCPLTDPEVTNYSLKG
CQGKPLPKDLRFIPDPKAGIMIKSVKRAYHRLCLHCSVDQEGKSVLSEKFILKVRPAFKAVPVVSVSKASYLLRE
GEEFTVTCTIKDVSSSVYSTWKRENSQTKLQEKYNSWHHGDFNYERQATLTISSARVNDSGVFMCYANNTFGSAN
VTTTLEVVDKGFINIFPMINTTVFVNDGENVDLIVEYEAFPKPEHQQWIYMNRTFTDKWEDYPKSENESNIRYVS
ELHLTRLKGTEGGTYTFLVSNSDVNAAIAFNVYVNTKPEILTYDRLVNGMLQCVAAGFPEPTIDWYFCPGTEQRC
SASVLPVDVQTLNSSGPPFGKLVVQSSIDSSAFKHNGTVECKAYNDVGKTSAYFNFAFKGNNKEQIHPHTLFTPL
LIGFVIVAGMMCIIVMILTYKYLQKPMYEVQWKVVEEINGNNYVYIDPTQLPYDHKWEFPRNRLSFGKTLGAGAF
GKVVEATAYGLIKSDAAMTVAVKMLKPSAHLTEREALMSELKVLSYLGNHMNIVNLLGACTIGGPTLVITEYCCY
GDLLNFLRRKRDSFICSKQEDHAEAALYKNLLHSKESSCSDSTNEYMDMKPGVSYVVPTKADKRRSVRIGSYIER
DVTPAIMEDDELALDLEDLLSFSYQVAKGMAFLASKNCIHRDLAARNILLTHGRITKICDFGLARDIKNDSNYVV
KGNARLPVKWMAPESIFNCVYTFESDVWSYGIFLWELFSLGSSPYPGMPVDSKFYKMIKEGFRMLSPEHAPAEMY
DIMKTCWDADPLKRPTFKQIVQLIEKQISESTNHIYSNLANCSPNRQKPVVDHSVRINSVGSTASSSQPLLVHDD

#### 2166/2682 FIGURE 1965

AACAACATCCTGGGATTGGGACCCACTTTCTGGGCACTGCTGGCCAGTCCCAAAATGGAACATAAGGAAGTGGTT CTTCTACTTCTTTATTTCTGAAATCAGGTCAAGGAGAGCCTCTGGATGACTATGTGAATACCCAGGGGGCTTCA CTGTTCAGTGTCACTAAGAAGCAGCTGGGAGCAGGAAGTATAGAAGAATGTGCAGCAAAATGTGAGGAGGACGAA GAATTCACCTGCAGGGCATTCCAATATCACAGTAAAGAGCAACAATGTGTGATAATGGCTGAAAAACAGGAAGTCC GGAAAGAACTACAGAGGGACGATGTCCAAAACAAAAAATGGCATCACCTGTCAAAAAATGGAGTTCCACTTCTCCC CACAGACCTAGATTCTCACCTGCTACACCCCCTCAGAGGGACTGGAGGAGAACTACTGCAGGAATCCAGACAAC GATCCGCAGGGGCCCTGGTGCTATACTACTGATCCAGAAAAGAGATATGACTACTGCGACATTCTTGAGTGTGAA GAGGAATGTATGCATTGCAGTGGAGAAAACTATGACGGCAAAATTTCCAAGACCATGTCTGGACTGGAATGCCAG TACTGTCGTAACCCCGATAGGGAGCTGCGGCCTTGGTGTTTCACCACCGACCCCAACAAGCGCTGGGAACTTTGC GACATCCCCCGCTGCACAACACCTCCACCATCTTCTGGTCCCACCTACCAGTGTCTGAAGGGAACAGGTGAAAAC AACAGGACACCAGAAAACTTCCCCTGCAAAAATTTGGATGAAAACTACTGCCGCAATCCTGACGGAAAAAGGGCC CCATGGTGCCATACAACCAACAGÇCAAGTGCGGTGGGAGTACTGTAAGATACCGTCCTGTGACTCCTCCCCAGTA TCCACGGAACAATTGGCTCCCACAGCACCACCTGAGCTAACCCCTGTGGTCCAGGACTGCTACCATGGTGATGGA CAGAGCTACCGAGGCACATCCTCCACCACCACCACGGAAAGAAGTGTCAGTCTTGGTCATCTATGACACCACAC CGGCACCAGAAGACCCCAGAAAACTACCCAAATGCTGGCCTGACAATGAACTACTGCAGGAATCCAGATGCCGAT AAAGGCCCCTGGTGTTTTACCACAGACCCCAGCGTCAGGTGGGAGTACTGCAACCTGAAAAAATGCTCAGGAACA GAAGCGAGTGTTGTAGCACCTCCGCCTGTTGTCCTGCTTCCAGATGTAGAGACTCCTTCCGAAGAAGACTGTATG TTTGGGAATGGGAAAGGATACCGAGGCAAGAGGGCGACCACTGTTACTGGGACGCCATGCCAGGACTGGGCTGCC AACCCTGATGGTGATGTAGGTGGTCCCTGGTGCTACACGACAAATCCAAGAAAACTTTACGACTACTGTGATGTC CCTCAGTGTGCGGCCCCTTCATTTGATTGTGGGAAGCCTCAAGTGGAGCCGAAGAAATGTCCTGGAAGGGTTGTG GGAGGCACCTTGATATCCCCAGAGTGGGTGTTGACTGCTGCCCACTGCTTGGAGAAGTCCCCAAGGCCTTCATCC TACAAGGTCATCCTGGGTGCACCCAAGAAGTGAATCTCGAACCGCATGTTCAGGAAATAGAAGTGTCTAGGCTG TTCTTGGAGCCCACACGAAAAGATATTGCCTTGCTAAAGCTAAGCAGTCCTGCCGTCATCACTGACAAAGTAATC CAAGGTACTTTTGGAGCTGGCCTTCTCAAGGAAGCCCAGCTCCCTGTGATTGAGAATAAAGTGTGCAATCGCTAT GAGTTTCTGAATGGAAGAGTCCAATCCACCGAACTCTGTGCTGGGCATTTGGCCGGAGGCACTGACAGTTGCCAG GGTGACAGTGGAGGTCCTCTGGTTTGCTTCGAGAAGGACAAATACATTTTACAAGGAGTCACTTCTTGGGGTCTT GGCTGTGCACGCCCCAATAAGCCTGGTGTCTATGTTCGTGTTTCAAGGTTTGTTACTTGGATTGAGGGAGTGATG AGAAATAAT<u>TAA</u>TTGGACGGGAGACAGAGTGACGCACTGACTCACCTAGAGGCTGGGACGTGGGTAGGGATTTAG CATGCTGGAAATAACTGGCAGTAATCAAACGAAGACACTGTCCCCAGCTACCAGCTACGCCAAACCTCGGCATTT TTTGTGTTATTTTCTGACTGCTGGATTCTGTAGTAAGGTGACATAGCTATGACATTTGTTAAAAATAAACTCTGT ACTTAACTTTGATTTGAGTAAATTTTGGTTTT

#### 2167/2682 FIGURE 1966

MEHKEVVLLLLLFLKSGQGEPLDDYVNTQGASLFSVTKKQLGAGSIEECAAKCEEDEEFTCRAFQYHSKEQQCVI
MAENRKSSIIIRMRDVVLFEKKVYLSECKTGNGKNYRGTMSKTKNGITCQKWSSTSPHRPRFSPATHPSEGLEEN
YCRNPDNDPQGPWCYTTDPEKRYDYCDILECEEECMHCSGENYDGKISKTMSGLECQAWDSQSPHAHGYIPSKFP
NKNLKKNYCRNPDRELRPWCFTTDPNKRWELCDIPRCTTPPPSSGPTYQCLKGTGENYRGNVAVTVSGHTCQHWS
AQTPHTHNRTPENFPCKNLDENYCRNPDGKRAPWCHTTNSQVRWEYCKIPSCDSSPVSTEQLAPTAPPELTPVVQ
DCYHGDGQSYRGTSSTTTTGKKCQSWSSMTPHRHQKTPENYPNAGLTMNYCRNPDADKGPWCFTTDPSVRWEYCN
LKKCSGTEASVVAPPPVVLLPDVETPSEEDCMFGNGKGYRGKRATTVTGTPCQDWAAQEPHRHSIFTPETNPRAG
LEKNYCRNPDGDVGGPWCYTTNPRKLYDYCDVPQCAAPSFDCGKPQVEPKKCPGRVVGGCVAHPHSWPWQVSLRT
RFGMHFCGGTLISPEWVLTAAHCLEKSPRPSSYKVILGAHQEVNLEPHVQEIEVSRLFLEPTRKDIALLKLSSPA
VITDKVIPACLPSPNYVVADRTECFITGWGETQGTFGAGLLKEAQLPVIENKVCNRYEFLNGRVQSTELCAGHLA
GGTDSCQGDSGGPLVCFEKDKYILQGVTSWGLGCARPNKPGVYVRVSRFVTWIEGVMRNN

#### 2168/2682 FIGURE 1967

CGGCGCCGCGAGCTTCTCCTCTCCTCACGACCGAGGCAGAGCAGTCATT**ATG**GCGAACCTTGGCTGCTGGATGCT GGTTCTCTTTGTGGCCACATGGAGTGACCTGGGCCTCTGCAAGAAGCGCCCGAAGCCTGGAGGATGGAACACTGG GGGCAGCCGATACCCGGGGCAGGGCAGCCCTGGAGGCAACCGCTACCCACCTCAGGGCGGTGGTGGCTGGGGGGCA GCCTCATGGTGGTGGCTGGGGGCAGCCTCATGGTGGTGGCTGGGGGCAGCCCCATGGTGGTGGCTGGGGACAGCC GAAGCACATGGCTGGTGCTGCAGCAGCTGGGGCAGTGGTGGGGGGCCTTGGCGGCTACATGCTGGGAAGTGCCAT GAGCAGGCCCATCATACATTTCGGCAGTGACTATGAGGACCGTTACTATCGTGAAAACATGCACCGTTACCCCAA CCAAGTGTACTACAGGCCCATGGATGAGTACAGCAACCAGAACAACTTTGTGCACGACTGCGTCAATATCACAAT CAAGCAGCACGGTCACCACAACCACCAAGGGGGGAGAACTTCACCGAGACCGACGTTAAGATGATGGAGCGCGT GGTTGAGCAGATGTGTATCACCCAGTACGAGAGGGAATCTCAGGCCTATTACCAGAGAGGATCGAGCATGGTCCT  $\tt CTTCTCCTCCACCTGTGATCCTCTGATCTCTTTCCTCATCTTCCTGATAGTGGGAT\underline{\textbf{TGA}} GGAAGGTCTTCCTG$ TCACTCTTTCTCTCTCTTTGTCCCGGATAGGCTAATCAATACCCTTGGCACTGATGGGCACTGGAAAACATAGA GTAGACCTGAGATGCTGGTCAAGCCCCCTTTGATTGAGTTCATCATGAGCCGTTGCTAATGCCAGGCCAGTAAAA GTATAACAGCAAATAACCATTGGTTAATCTGGACTTATTTTTGGACTTAGTGCAACAGGTTGAGGCTAAAACAAA TCTCAGAACAGTCTGAAATACCTTTGCCTGGATACCTCTGGCTCCTTCAGCAGCTAGAGCTCAGTATACTAATGC CCTATCTTAGTAGAGATTTCATAGCTATTTAGAGATATTTTCCATTTTAAGAAAACCCGACAACATTTCTGCCAG GTTTGTTAGGAGGCCACATGATACTTATTCAAAAAAATCCTAGAGATTCTTAGCTCTTGGGATGCAGGCTCAGCC CGCTGGAGCATGAGCTCTGTGTGTACCGAGAACTGGGGTGATGTTTTACTTTTCACAGTATGGGCTACACAGCAG CTGTTCAACAAGAGTAAATATTGTCACAACACTGAACCTCTGGCTAGAGGACATATTCACAGTGAACATAACTGT AACATATATGAAAGGCTTCTGGGACTTGAAATCAAATGTTTGGGAATGGTGCCCTTGGAGGCAACCTCCCATTTT AGATGTTTAAAGGACCCTATATGTGGCATTCCTTTCTTTAAACTATAGGTAATTAAGGCAGCTGAAAAGTAAATT GCCTTCTAGACACTGAAGGCAAATCTCCTTTGTCCATTTACCTGGAAACCAGAATGATTTTGACATACAGGAGAG CTGCAGTTGTGAAAGCACCATCATCATAGAGGATGATGTAATTAAAAAATGGTCAGTGTGCAAAGAAAAAACTG CTTGCATTTCTTTATTTCTGTCTCATAATTGTCAAAAACCAGAATTAGGTCAAGTTCATAGTTTCTGTAATTGGC TTTTGAATCAAAGAATAGGGAGACAATCTAAAAAATATCTTAGGTTGGAGATGACAGAAATATGATTGAA GTGGAAAAAGAAATTCTGTTAATGTTAATTAAAGTAAAATTATTCCCTGAATTGTTTGATATTGTCACCTAGCAG ATATGTATTACTTTTCTGCAATGTTATTATTGGCTTGCACTTTGTGAGTATCTATGTAAAAATATATGTATAT AAAATATATTTGCATAGGACAGACTTAGGAGTTTTGTTTAGAGCAGTTAACATCTGAAGTGTCTAATGCATTAA CTTTTGTAAGGTACTGAATACTTAATATGTGGGAAACCCTTTTGCGTGGTCCTTAGGCTTACAATGTGCACTGAA TCGTTTCATGTAAGAATCCAAAGTGGACACCATTAACAGGTCTTTGAAATATGCATGTACTTTATATTTTCTATA **GCGAAGATGAGCACC** 

# 2169/2682 FIGURE 1968

#### 2170/2682 FIGURE 1969

 $\verb|CCACGCGTCCGCGGACGCGTGGGCGAGAAGTGCTTCCAAGCGTCCATTTTGAGCCTTGGAAACTACGACGACCAA|$ AGGGCCACGGGTTCCTGGGTCGTTTCTCATTTCCGTCGAGTTAAACGTCTGGGGCTGCTTCTGAGGAATCAGCTT GCTTTCCACCTGTCACAGGACCCCACCTCGTAGGCTGTGGGGGATGTGATGGAGGGTCAGAATCTCCAGGGGAGCT TCTTTCGACTCTTCTACCCCTGCCAAAAGGCAGAGGAGACCATGGAGCAGCCCCTGTGGATTCCCCGCTATGAGT ACTGCACTGGCCGAGTACCTGCAGTTTAATAAGCGCTGCGGGGGCTTGCTGTTCAACCTGGCGGTGGGAT  $\tt CTTGTCGCCTGCTGTTAGCTGGAATGGCCCCTTTAAGACAAAGGACTCTGGATACCCCTTGATCATCTTCTCCCC$ ATGGCCTAGGAGCCTTCAGGACTTTGTATTCAGCCTTCTGCATGGAGCTGGCCTCACGTGGCTTTGTGGTTGCTG TGCCAGAGCACAGGGACCGGTCAGCGGCAACCACCTATTTCTGCAAGCAGGCCCCAGAAGAAACCAGCCCACCA ATGAATCGCTGCAGGAGGAATGGATCCCTTTCCGTCGAGTTGAGGAAGGGAGAAGGAATTTCATGTTCGGAATC  $\verb|CCCAGGTGCATCAGCGGGTAAGCGAGTGTTTACGGGTGTTGAAGATCCTGCAAGAGGTCACTGCTGGGCAGACTG|\\$ TCTTCAACATCTTGCCTGGTGGCTTGGATCTGATGACTTTGAAGGGCAACATTGACATGAGCCGTGTGGCTGTGA TGGGACATTCATTTGGAGGGGCCACAGCTATTCTGGCTTTGGCCAAGGAGACCCAATTTCGGTGTGCGGTGGCTC TGGATGCTTGGATGTTTCCTCTGGAACGTGACTTTTACCCCAAGGCCCGAGGACCTGTGTTCTTTATCAATACTG AGAAATTCCAGACAATGGAGAGTGTCAATTTGATGAAGAAGATATGTGCCCAGCATGAACAGTCTAGGATCATAA CCGTTCTTGGTTCTGTTCATCGGAGTCAAACTGACTTTGCTTTTGTGACTGGCAACTTGATTGGTAAATTCTTCT  $\tt CCACTGAAACCCGTGGGAGCCTGGACCCCTATGAAGGGCAGGAGGTTATGGTACGGGCCATGTTGGCCTTCCTGC$ AGAAGCACCTCGACCTGAAAGAAGACTATAATCAATGGAACAACCTTATTGAAGGCATTGGACCGCTCACCC  ${\tt CAGGGGCCCCCCACCATCTGTCCAGCCTG} \underline{{\tt TAG}}{\tt GCACAACTGGCCATTTGTAAAGTCACTTCAGCCAAGTTTTCAT}$ TTGGGAGCTACCCAAGGGCACCCATGAGCTCCTATCAAGAAGTGATCAACGTGACCCCTTTTCACAGATTGAAAG GTGTAATCACACTGCTGCTTGGATAACTGGGTACTTTGATCTTAGATTTGATCTTAAAATCACTTTGGGACTGGG ATCCCTTGCTGATTGACAAACAGACTTTCTGGGACCTTGATGGAGTGGGGAACAAGCAGTAGAGTGGGACTGGGG GAGACCCAGGCCCCGGGCTGAGCACTGTGAGGCCTGGATGTGAAGACTCAGCCCAGCGAAGCTCATTCCCTTACC CCCGGCCAGTGCTGCTTCAGTGGAAGAGATGAAGCCAAAGGACAGAATGAAAATCCCTACCTTCAGAGACTC TAGTACTACTTATACTTACAGTAGTAAGTTATACTTGTGAGCCCACAGAGTGGCAGACAGCATGGCTCTCACAGC ACAGGGAGAAAAACTGAGGTACACAGAGGTACCTCAGAAGCTCTGGATGTCTTTGGGGGGTTTTGCTAAGTGTATC TTGATAGGAAACAACAAAAGCAGGTTGAGATGGGGAAGATGACAGAACAACAGTGTTAAATGGCCATTTGCACAG GCCTTTGCCACAACAGAGAAGTAGTTTGGTCAGCTAAAACTCAGCTGCAGCCTGGACAGTAGAGCGAGACCCCAT TCACTTAAGGCCAGGAGTTCAAGACCACCTGGCCAACATGGTGAAACCCCGTCTCTACTAAAAATACAAAAAATT AGCCTGGCGTAATGGCAGGCGCCTATAATCCCAGCTACTCAGGAGGCTGAAGCAGAAGAATCACTTGAACCTAGG AGGCGGAGGTTGCAGTGAGTCAAGATCGCGCCACTGCACTCCAGCCTGGGTGACAGAGCAAGACTCTGTCTT

## 2171/2682 FIGURE 1970

MGVNQSVGFPPVTGPHLVGCGDVMEGQNLQGSFFRLFYPCQKAEETMEQPLWIPRYEYCTGLAEYLQFNKRCGGL LFNLAVGSCRLPVSWNGPFKTKDSGYPLIIFSHGLGAFRTLYSAFCMELASRGFVVAVPEHRDRSAATTYFCKQA PEENQPTNESLQEEWIPFRRVEEGEKEFHVRNPQVHQRVSECLRVLKILQEVTAGQTVFNILPGGLDLMTLKGNI DMSRVAVMGHSFGGATAILALAKETQFRCAVALDAWMFPLERDFYPKARGPVFFINTEKFQTMESVNLMKKICAQ HEQSRIITVLGSVHRSQTDFAFVTGNLIGKFFSTETRGSLDPYEGQEVMVRAMLAFLQKHLDLKEDYNQWNNLIE GIGPSLTPGAPHHLSSL

#### 2172/2682 FIGURE 1971

TTTCCAGCCATGGCTGCCATTACCTGACCAGCGCCACAGCCGGTCTCTCTGCAGGCGCCCGGGAGAAGTGACCAGA GCAATTTCTGCTTTTCACAGGGCGGGTTTCTCAACGGTGACTTGTGGGCAGTGCCTTCTGCTGAGCGAGTCATGG CCCGAAGGCAGAACTAACTGTGCCTGCAGTCTTCACTCTCAGG<mark>ATG</mark>CAGCCGAGGTGGGCCCAAGGGGCCACGAT GTGGCTTGGAGTCCTGCTGACCCTTCTGCTCTGTTCAAGCCTTGAGGGTCAAGAAAACTCTTTCACAATCAACAG TGTTGACATGAAGAGCCTGCCGGACTGGACGGTGCAAAATGGGAAGAACCTGACCCTGCAGTGCTTCGCGGATGT CAGCACCACCTCTCACGTCAAGCCTCAGCACCAGATGCTGTTCTATAAGGATGACGTGCTGTTTTACAACATCTC CTCCATGAAGAGCACAGAGAGTTATTTTATTCCTGAAGTCCGGATCTATGACTCAGGGACATATAAATGTACTGT GATTGTGAACAACAAAGAGAAAACCACTGCAGAGTACCAGGTGTTGGTGGAAGGAGTGCCCAGTCCCAGGGTGAC ACTGGACAAGAAGAGGCCATCCAAGGTGGGATCGTGAGGGTCAACTGTTCTGTCCCAGAGGAAAAGGCCCCAAT ACACTTCACAATTGAAAAACTTGAACTAAATGAAAAAATGGTCAAGCTGAAAAGAGAGAAGAATTCTCGAGACCA GAATTTTGTGATACTGGAATTCCCCGTTGAGGAACAGGACCGCGTTTTATCCTTCCGATGTCAAGCTAGGATCAT TTCTGGGATCCATATGCAGACCTCAGAATCTACCAAGAGTGAACTGGTCACCGTGACGGAATCCTTCTCTACACC CAAGTTCCACATCAGCCCCACCGGAATGATCATGGAAGGAGCTCAGCTCCACATTAAGTGCACCATTCAAGTGAC TCACCTGGCCCAGGAGTTTCCAGAAATCATAATTCAGAAGGACAAGGCGATTGTGGCCCACAACAGACATGGCAA CAAGGCTGTGTACTCAGTCATGGCCATGGTGGAGCACAGTGGCAACTACACGTGCAAAGTGGAGTCCAGCCGCAT TCTGGACCAAGGTGAAAGACTGAACCTGTCCTGCTCCATCCCAGGAGCACCTCCAGCCAACTTCACCATCCAGAA GGAAGATACGATTGTGTCACAGACTCAAGATTTCACCAAGATAGCCTCAAAGTCGGACAGTGGGACGTATATCTG CACTGCAGGTATTGACAAAGTGGTCAAGAAAAGCAACACAGTCCAGATAGTCGTATGTGAAATGCTCTCCCAGCC CAGGATTTCTTATGATGCCCAGTTTGAGGTCATAAAAGGACAGACCATCGAAGTCCGTTGCGAATCGATCAGTGG AACTTTGCCTATTTCTTACCAACTTTTAAAAACAAGTAAAGTTTTGGAGAATAGTACCAAGAACTCAAATGATCC TGCGGTATTCAAAGACAACCCCACTGAAGACGTCGAATACCAGTGTGTTGCAGATAATTGCCATTCCCACGCCAA AATGTTAAGTGAGGTTCTGAGGGTGAAGGTGATAGCCCCGGTGGATGAGGTCCAGATTTCTATCCTGTCAAGTAA TTACAGAGAAAAAGAGGGCAAACCCTTCTATCAAATGACCTCAAATGCCACCCAGGCATTTTGGACCAAGCAGAA GGCTAACAAGGAACAGGAGGGAGAGTATTACTGCACAGCCTTCAACAGAGCCAACCACGCCTCCAGTGTCCCCAG  ${\tt AAGCAAAATACTGACAGTCAGAGTCATTCTTGCCCCATGGAAGAAAGGACTTATTGCAGTGGTTATCATCGGAGT}$ GATCATTGCTCTTGATCATTGCGGCCAAATGTTATTTTCTGAGGAAAGCCAAGGCCAAGCAGATGCCAGTGGA AATGTCCAGGCCAGCAGTACCACTTCTGAACTCCAACAACGAGAAAATGTCAGATCCCAATATGGAAGCTAACAG TCATTACGGTCACAATGACGATGTCGGAAACCATGCAATGAAACCAATAAATGATAATAAAGAGCCTCTGAACTC AGACGTGCAGTACACGGAAGTTCAAGTGTCCTCAGCTGAGTCTCACAAAGATCTAGGAAAGAAGAAGACACAGAGAC AGTGTACAGTGAAGTCCGGAAAGCTGTCCCTGATGCCGTGGAAAGCAGATACTCTAGAACGGAAGGCTCCCTTGA TGGAACT<u>TAG</u>ACAGCAAGGCCAGATGCACATCCCTGGAAGGACATCCATGTTCCGAGAAGAACAGATGATCCCTG TATTTCAAGACCTCTGTGCACTTATTTATGAACCTGCCCTGCTCCCACAGAACACAGCAATTCCTCAGGCTAAGC TGCCGGTTCTTAAATCCATCCTGCTAAGTTAATGTTGGGTAGAAAGAGATACAGAGGGGCTGTTGAATTTCCCAC ATACACTCCTTCCACCAAGTTGGAACATCCTTGGAAATTGGAAGAGCACAAGAGGGAGATCCAGGGCAAGGCCATT GGGATATTCTGAAACTTGAATATTTTGTTTTGTGCAGAGATAAAGACCTTTTCCATGCACCCTCATACACAGAAA CCAATTTTCTTTTTTATACTCAATCATTTCTAGCGCATGGCCTGGTTAGAGGCTGGTTTTTCTCTTTTCCTTTG GTCCTTCAAAGGCTTGTAGTTTTGGGTAGTCCTTGTTCTTTGGAAATACACAGTGCTGACCAGACAGCCTCCCCC TGTCCCCTCTATGACCTCGCCCTCCACAAATGGGAAAACCAGACTACTTGGGAGCACCGCCTGTGAAATACCAAC CTGAAGACACGGTTCATTCAGGCAACGCACAAAACAGAAAATGAAGGTGGAACAAGCACAGATGTTCTTCAACTG TTTTTGTCTACACTCTTTCTCTTTTCCTCTACCATGCTGAAGGCTGAAAGACAGGAAGATGGTGCCATCAGCAAA 

# FIGURE 1972

MQPRWAQGATMWLGVLLTLLLCSSLEGQENSFTINSVDMKSLPDWTVQNGKNLTLQCFADVSTTSHVKPQHQMLF
YKDDVLFYNISSMKSTESYFIPEVRIYDSGTYKCTVIVNNKEKTTAEYQVLVEGVPSPRVTLDKKEAIQGGIVRV
NCSVPEEKAPIHFTIEKLELNEKMVKLKREKNSRDQNFVILEFPVEEQDRVLSFRCQARIISGIHMQTSESTKSE
LVTVTESFSTPKFHISPTGMIMEGAQLHIKCTIQVTHLAQEFPEIIIQKDKAIVAHNRHGNKAVYSVMAMVEHSG
NYTCKVESSRISKVSSIVVNITELFSKPELESSFTHLDQGERLNLSCSIPGAPPANFTIQKEDTIVSQTQDFTKI
ASKSDSGTYICTAGIDKVVKKSNTVQIVVCEMLSQPRISYDAQFEVIKGQTIEVRCESISGTLPISYQLLKTSKV
LENSTKNSNDPAVFKDNPTEDVEYQCVADNCHSHAKMLSEVLRVKVIAPVDEVQISILSSKVVESGEDIVLQCAV
NEGSGPITYKFYREKEGKPFYQMTSNATQAFWTKQKANKEQEGEYYCTAFNRANHASSVPRSKILTVRVILAPWK
KGLIAVVIIGVIIALLIIAAKCYFLRKAKAKQMPVEMSRPAVPLLNSNNEKMSDPNMEANSHYGHNDDVGNHAMK
PINDNKEPLNSDVQYTEVQVSSAESHKDLGKKDTETVYSEVRKAVPDAVESRYSRTEGSLDGT

#### 2174/2682 FIGURE 1973

AGCTTTTCTCTTCTGTCAACCCCACACGCCTTTGGCACAATGAAGTGGGTAACCTTTATTTCCCTTCTTTTTCTC TTTAGCTCGGCTTATTCCAGGGGTGTTTTCGTCGAGATGCACACAAGAGTGAGGTTGCTCATCGGTTTAAAGAT TTGGGAGAAGAAATTTCAAAGCCTTGGTGTTGATTGCCTTTGCTCAGTATCTTCAGCAGTGTCCATTTGAAGAT CATGTAAAATTAGTGAATGAAGTAACTGAATTTGCAAAAACATGTGTTGCTGATGAGTCAGCTGAAAATTGTGAC AAATCACTTCATACCCTTTTTGGAGACAAATTATGCACAGTTGCAACTCTTCGTGAAACCTATGGTGAAATGGCT GACTGCTGTGCAAAACAAGAACCTGAGAGAAATGAATGCTTCTTGCAACACAAAGATGACAACCCAAACCTCCCC CGATTGGTGAGACCAGAGGTTGATGTGATGTGCACTGCTTTTCATGACAATGAAGAGACATTTTTGAAAAAATAC TTATATGAAATTGCCAGAAGACATCCTTACTTTTATGCCCCGGAACTCCTTTTCTTTGCTAAAAGGTATAAAGCT GGGAAGGCTTCGTCTGCCAAACAGAGACTCAAGTGTGCCAGTCTCCAAAAATTTGGAGAAAGAGCTTTCAAAGCA  $\tt TGGGCAGTAGCTCGCCTGAGCCAGAGATTTCCCAAAGCTGAGTTTGCAGAAGTTTCCAAGTTAGTGACAGATCTT$ ACCAAAGTCCACACGGAATGCTGCCATGGAGATCTGCTTGAATGTGCTGATGACAGGGCGGACCTTGCCAAGTAT ATCTGTGAAAATCAAGATTCGATCTCCAGTAAACTGAAGGAATGCTGTGAAAAACCTCTGTTGGAAAAATCCCAC TGCATTGCCGAAGTGGAAAATGATGAGATGCCTGCTGACTTGCCTTCATTAGCTGCTGATTTTGTTGAAAGTAAG GATGTTTGCAAAAACTATGCTGAGGCAAAGGATGTCTTCCTGGGCATGTTTTTGTATGAATATGCAAGAAGGCAT CCTGATTACTCTGTCGTGCTGCTGAGACTTGCCAAGACATATGAAACCACTCTAGAGAAGTGCTGTGCCGCT GCAGATCCTCATGAATGCTATGCCAAAGTGTTCGATGAATTTAAACCTCTTGTGGAAGAGCCTCAGAATTTAATC AAACAAAATTGTGAGCTTTTTGAGCAGCTTGGAGAGTACAAATTCCAGAATGCGCTATTAGTTCGTTACACCAAG AAAGTACCCCAAGTGTCAACTCCAACTCTTGTAGAGGTCTCAAGAAACCTAGGAAAAGTGGGCAGCAAATGTTGT CATGAGAAAACGCCAGTAAGTGACAGAGTCACCAAATGCTGCACAGAATCCTTGGTGAACAGGCGACCATGCTTT TCAGCTCTGGAAGTCGATGAAACATACGTTCCCAAAGAGTTTAATGCTGAAACATTCACCTTCCATGCAGATATA GCAACAAAAGAGCCAACTGAAAGCTGTTATGGATGATTTCGCAGCTTTTGTAGAGAAGTGCTGCAAGGCTGACGAT  ${\tt AAGGAGACCTGCTTTGCCGAGGAGGGTAAAAAACTTGTTGCTGCAAGTCAAGCTGCCTTAGGCTTA\underline{{\tt TAA}}{\tt CATCTA}$ CATTTAAAAGCATCTCAGCCTACCATGAGAATAAGAGAAAAGAAAATGAAGATCAAAAGCTTATTCATCTGTTTTC TTTTTCGTTGGTGTAAAGCCAACACCCTGTCTAAAAAACATAAATTTCTTTAATCATTTTGCCTCTTTTCTCTGT GCTTCAATTAATAAAAAATGGAAAGAATCTAATAGAGTGGTACAGCACTGTTATTTTTCAAAGATGTGTTGCTAT CCTGAAAATTCTGTAGGTTCTGTGGAAGTTCCAGTGTTCTCTTATTCCACTTCGGTAGAGGATTTCTAGTTTC TGTGGGCTAATTAAATAAATCACTAATACTCTTCTAAGTT

#### 2175/2682 FIGURE 1974

MKWVTFISLLFLFSSAYSRGVFRRDAHKSEVAHRFKDLGEENFKALVLIAFAQYLQQCFFEDHVKLVNEVTEFAK
TCVADESAENCDKSLHTLFGDKLCTVATLRETYGEMADCCAKQEPERNECFLQHKDDNPNLPRLVRPEVDVMCTA
FHDNEETFLKKYLYEIARRHPYFYAPELLFFAKRYKAAFTECCQAADKAACLLPKLDELRDEGKASSAKQRLKCA
SLQKFGERAFKAWAVARLSQRFPKAEFAEVSKLVTDLTKVHTECCHGDLLECADDRADLAKYICENQDSISSKLK
ECCEKPLLEKSHCIAEVENDEMPADLPSLAADFVESKDVCKNYAEAKDVFLGMFLYEYARRHPDYSVVLLLRLAK
TYETTLEKCCAAADPHECYAKVFDEFKPLVEEPQNLIKQNCELFEQLGEYKFQNALLVRYTKKVPQVSTPTLVEV
SRNLGKVGSKCCKHPEAKRMPCAEDYLSVVLNQLCVLHEKTPVSDRVTKCCTESLVNRRPCFSALEVDETYVPKE
FNAETFTFHADICTLSEKERQIKKQTALVELVKHKPKATKEQLKAVMDDFAAFVEKCCKADDKETCFAEEGKKLV
AASQAALGL

# FIGURE 1975

GGCACGAGGGTGTGCGTGATGGAGAAAATTGGGCACCAGGGCTGCTCCCGAGATTCTCAGATCTGATTTCCACGC TTGCTACCAAAATAGTCTGGGCAGGCCACTTTTGGAAGTAGGCGTTATCTAGTGAGCAGGCGGCCGCTTTCGATT AGAGTCCCAGACCCGGCCGGGACCGGGACGGCGTCCGAGTGCCAATGGCTAGCTCTAGGTGTCCCGCTCCCCGCG GGTGCCGCTGCCTCCCCGGAGCTTCTCTCGCATGGCTGGGGACAGTACTGCTACTTCTCGCCGACTGGGTGCTGC TCCGGACCGCGCTGCCCCGCATATTCTCCCTGCTGGTGCCCACCGCGCTGCCACTGCTCCGGGTCTGGGCGGTGG GCCTGAGCCGCTGGGCGGTGCTCTGGGCGGGGCCTGCGGGGTCCTCAGGGCAACGGTTGGCTCCAAGAGCGAAA ACGCAGGTGCCCAGGGCTGGCTGCTTTGAAGCCATTAGCTGCGGCACTGGGCTTGGCCCTGCCGGGACTTG CCTTGTTCCGAGAGCTGATCTCATGGGGAGCCCCCGGGTCCGCGGATAGCACCAGGCTACTGCACTGGGGAAGTC ACCCTACCGCCTTCGTTGTCAGTTATGCAGCGGCACTGCCCGCAGCAGCCCTGTGGCACAAACTCGGGAGCCTCT GGGTGCCCGGCGGTCAGGGCGGCTCTGGAAACCCTGTGCGTCGGCTTCTAGGCTGCCTGGGCTCGGAGACGCGCC GCCTCTCGCTGTTCCTGGTCGTCGTCGTCCTCTCTCTTTGGGGAGATGGCCATTCCATTCTTTACGGGCCGCC TCACTGACTGGATTCTACAAGATGGCTCAGCCGATACCTTCACTCGAAACTTAACTCTCATGTCCATTCTCACCA TAGCCAGTGCAGTGCTGGAGTTCGTGGGTGACGGGATCTATAACAACACCATGGGCCACGTGCACAGCCACTTGC AGGGAGAGGTGTTTGGGGCTGTCCTGCGCCAGGAGACGGAGTTTTTCCAACAGAACCAGACAGGTAACATCATGT TGCGAGGCCTATGTCTCTTGGGGATCATGCTCTGGGGATCAGTGTCCCTCACCATGGTCACCCTGATCACCCTGC CTCTGCTTTTCCTTCTGCCCAAGAAGGTGGGAAAATGGTACCAGTTGCTGGAAGTGCAGGTGCGGGAATCTCTGG CAAAGTCCAGCCAGGTGGCCATTGAGGCTCTGTCGGCCATGCCTACAGTTCGAAGCTTTGCCAACGAGGAGGGCG AAGCCCAGAAGTTTAGGGAAAAGCTGCAAGAAATAAAGACACTCAACCAGAAGGAGGCTGTGGCCTATGCAGTCA ACTCCTGGACCACTAGTATTTCAGGTATGCTGCTGAAAGTGGGAATCCTCTACATTGGTGGGCAGCTGGTGACCA GTGGGGCTGTAAGCAGTGGGAACCTTGTCACATTTGTTCTCTACCAGATGCAGTTCACCCAGGCTGTGGAGGTAC TGCTCTCCATCTACCCCAGAGTACAGAAGGCTGTGGGCTCCTCAGAGAAAATATTTGAGTACCTGGACCGCACCC CTCGCTGCCCACCCAGTGGTCTGTTGACTCCCTTACACTTGGAGGGCCTTGTCCAGTTCCAAGATGTCTCCTTTG CCTACCCAAACCGCCCAGATGTCTTAGTGCTACAGGGGCTGACATTCACCCTACGCCCTGGCGAGGTGACGGCGC TGGTGGGACCCAATGGGTCTGGGAAGAGCACAGTGGCTGCCCTGCTGCAGAATCTGTACCAGCCCACCGGGGGAC AAGAGCCACAGGTATTTGGAAGAAGTCTTCAAGAAAATATTGCCTATGGCCTGACCCAGAAGCCAACTATGGAGG AAATCACAGCTGCTGCAGTAAAGTCTGGGGCCCATAGTTTCATCTCTGGACTCCCTCAGGGCTATGACACAGAGG TAGACGAGGCTGGGAGCCAGCTGTCAGGGGGTCAGCGACAGGCAGTGGCGTTGGCCCGAGCATTGATCCGGAAAC CGTGTGTACTTATCCTGGATGATGCCACCAGTGCCCTGGATGCAAACAGCCAGTTACAGGTGGAGCAGCTCCTGT ACGAAAGCCCTGAGCGGTACTCCCGCTCAGTGCTTCTCATCACCCAGCACCTCAGCCTGGTGGAGCAGGCTGACC ACATCCTCTTTCTGGAAGGAGGCGCTATCCGGGAGGGGGGAACCCACCAGCAGCTCATGGAGAAAAAAGGGGTGCT  ${\tt ACTGGGCCATGGTGCAGGCTCCTGCAGATGCTCCAGAA}{{\tt TGA}}{\tt AGCCTTCTCAGACCTGCGCACTCCATCTCCCTC}$  ${\tt CCTTTTCTTCTCTGTGGTGGAGAACCACAGCTGCAGAGTAGCAGCTGCCTCCAGGATGAGTTACTTGAAATTT}$ GCCTTGAGTGTGTTACCTCCTTTCCAAGCTCCTCGTGATAATGCAGACTTCCTGGAGTACAAACACAGGATTTGT AATTCCTACTGTAACGGAGTTTAGAGCCAGGGCTGATGCTTTGGTGTGGCCAGCACTCTGAAACTGAGAAATGTT CAGAATGTACGGAAAGATGATCAGCTATTTTCAACATAACTGAAGGCATATGCTGGCCCATAAACACCCTGTAGG TTCTTGATATTTATAATAAAATTGGTGTTTTGT

#### 2177/2682 FIGURE 1976

MAELLASAGSACSWDFPRAPPSFPPPAASRGGLGGTRSFRPHRGAESPRPGRDRDGVRVPMASSRCPAPRGCRCL
PGASLAWLGTVLLLLADWVLLRTALPRIFSLLVPTALPLLRVWAVGLSRWAVLWLGACGVLRATVGSKSENAGAQ
GWLAALKPLAAALGLALPGLALFRELISWGAPGSADSTRLLHWGSHPTAFVVSYAAALPAAALWHKLGSLWVPGG
QGGSGNPVRRLLGCLGSETRRLSLFLVLVVVLSSLGEMAIPFFTGRLTDWILQDGSADTFTRNLTLMSILTIASAV
LEFVGDGIYNNTMGHVHSHLQGEVFGAVLRQETEFFQQNQTGNIMSRVTEDTSTLSDSLSENLSLFLWYLVRGLC
LLGIMLWGSVSLTMVTLITLPLLFLLPKKVGKWYQLLEVQVRESLAKSSQVAIEALSAMPTVRSFANEEGEAQKF
REKLQEIKTLNQKEAVAYAVNSWTTSISGMLLKVGILYIGGQLVTSGAVSSGNLVTFVLYQMQFTQAVEVLLSIY
PRVQKAVGSSEKIFEYLDRTPRCPPSGLLTPLHLEGLVQFQDVSFAYPNRPDVLVLQGLTFTLRPGEVTALVGPN
GSGKSTVAALLQNLYQPTGGQLLLDGKPLPQYEHRYLHRQVAAVGQEPQVFGRSLQENIAYGLTQKPTMEEITAA
AVKSGAHSFISGLPQGYDTEVDEAGSQLSGGQRQAVALARALIRKPCVLILDDATSALDANSQLQVEQLLYESPE
RYSRSVLLITQHLSLVEQADHILFLEGGAIREGGTHQQLMEKKGCYWAMVQAPADAPE

#### 2178/2682 FIGURE 1977

 $\texttt{CGGGGACAGAGCAGTGACC} \underline{\textbf{ATG}} \texttt{GCCAGGCTGGCGTTGTCTCCTGTGCCCAGCCACTGGATGGTGGCGTTGCTGCT}$ GCTGCTCTCAGCTGAGCCAGTACCAGCAGCCAGATCGGAGGACCGGTACCGGAATCCCAAAGGTAGTGCTTGTTC GCGGATCTGGCAGAGCCCACGTTTCATAGCCAGGAAACGGGGCTTCACGGTGAAAATGCACTGCTACATGAACAG  $\tt CGCCTCCGGCAATGTGAGCTGGCTCTGGAAGCAGGAGATGGACGAGAATCCCCAGCAGCTGAAGCTGGAAAAGGG$  ${\tt CCGCATGGAAGAGTCCCAGAACGAATCTCTCGCCACCCTCACCATCCAAGGCATCCGGTTTGAGGACAATGGCAT}$ CTACTTCTGTCAGCAGAAGTGCAACAACACCTCGGAGGTCTACCAGGGCTGCGGCACAGAGCTGCGAGTCATGGG ATTCAGCACCTTGGCACAGCTGAAGCAGGAACACGCTGAAGGATGGTATCATCATGATCCAGACGCTGCTGAT CATCCTCTTCATCATCGTGCCTATCTTCCTGCTGCTGGACAAGGATGACAGCAAGGCTGGCATGGAGGAAGATCA CACCTACGAGGGCCTGGACATTGACCAGACAGCCACCTATGAGGACATAGTGACGCTGCGGACAGGGGAAGTGAA  $\tt GTGGTCTGTAGGTGAGCACCCAGGCCAGGAG{\color{blue} TGA} GAGCCAGGTCGCCCCATGACCTGGGTGCAGGCTCCCTGGCC}$ TCAGTGACTGCTTCGGAGCTGCCTGGCTCATGGCCCAACCCCTTTCCTGGACCCCCAGCTGGCCTCTGAAGCTG GCCCACCAGAGCTGCCATTTGTCTCCAGCCCCTGGTCCCCAGCTCTTGCCAAAGGGCCTGGAGTAGAAGGACAAC AGGGCAGCAACTTGGAGGGAGTTCTCTGGGGGATGGACGGGACCCAGCCTTCTGGGGGTGCTATGAGGTGATCCGT  $\verb|CCCCACACATGGGATGGGGGAGGCAGAGACTGGTCCAGAGCCCGCAAATGGACTCGGAGCCGAGGGCCTCCCAGC| \\$ TCCCACCCAGGGAGGCCCTGGCCTCCAGTGCCTTCCCCCGTGGAATAAACGGTGTGTCCTGAGAAACCA

# 2179/2682 FIGURE 1978

MARLALSPVPSHWMVALLLLLSAEPVPAARSEDRYRNPKGSACSRIWQSPRFIARKRGFTVKMHCYMNSASGNVS WLWKQEMDENPQQLKLEKGRMEESQNESLATLTIQGIRFEDNGIYFCQQKCNNTSEVYQGCGTELRVMGFSTLAQ LKQRNTLKDGIIMIQTLLIILFIIVPIFLLLDKDDSKAGMEEDHTYEGLDIDQTATYEDIVTLRTGEVKWSVGEH PGQE

#### 2180/2682 FIGURE 1979

GAGGTGTTTCCCTTAGCTATGGAAACTCTATAAGAGAGATCCAGCTTGCCTCCTCTTGAGCAGTCAGCAACAGGG TCCCGTCCTTGACACCTCAGCCTCTACAGGACTGAGAAGAAGTAAAACCGTTTGCTGGGGGCTGGCCTGACTCACC  $\mathtt{AGCTGCC}$ GGCCCCTCCAGGCACAGTTCTTCCCTGTCCAACCTCTGTGCCCAGAAGGCCTGGTCAAAGGAGGCCACCACCACC ACCGCCACCGCCACCACTACCACCTCCGCCGCCGCCGCCACCACTGCCTACCGCTGCCACCCCTGAAGAA GAGAGGGAACCACAGCACAGGCCTGTGTCTCCTTGTGATGTTTTTCATGGTTCTGGTTGCCTTGGTAGGATTGGG AGCATCATCTTTGGAGAAGCAAATAGGCCACCCCAGTCCACCCCTGAAAAAAAGGAGCTGAGGAAAGTGGCCCA TTTAACAGGCAAGTCCAACTCAAGGTCCATGCCTCTGGAATGGGAAGACACCTATGGAATTGTCCTGCTTTCTGG AGTGAAGTATAAGAAGGGTGGCCTTGTGATCAATGAAACTGGGCTGTACTTTGTATATTCCAAAGTATACTTCCG GGGTCAATCTTGCAACAACCTGCCCCTGAGCCACAAGGTCTACATGAGGAACTCTAAGTATCCCCAGGATCTGGT GATGATGGAGGGGAAGATGATGAGCTACTGCACTACTGGGCAGATGTGGGCCCGCAGCAGCTACCTGGGGGCAGT  ${\tt GACGTTTTTCGGCTTATATAAGCTC} {\color{red}{\textbf{TAA}}} {\color{red}{\textbf{GAGAGCACTTTGGGATTCTTTCCATTATGATTCTTTGTTACAGGCA}}$ CCGAGAATGTTGTATTCAGTGAGGGTCTTCTTACATGCATTTGAGGTCAAGTAAGAAGACATGAACCAAGTGGAC CTTGAGACCACAGGGTTCAAAATGTCTGTAGCTCCTCAACTCACCTAATGTTTATGAGCCAGACAAATGGAGGAA TATGACGGAAGAACATAGAACTCTGGGCTGCCATGTGAAGAGGGGAGAAGCATGAAAAAGCAGCTACCAGGTGTTC TACACTCATCTTAGTGCCTGAGAGTATTTAGGCAGATTGAAAAGGACACCTTTTAACTCACCTCTCAAGGTGGGC CTTGCTACCTCAAGGGGGACTGTCTTTCAGATACATGGTTGTGACCTGAGGATTTAAGGGATGGAAAAGGAAGAC TAGAGGCTTGCATAATAAGCTAAAGAGGCTGAAAGAGGCCAATGCCCCACTGGCAGCATCTTCACTTCTAAATGC ATATCCTGAGCCATCGGTGAAACTAACAGATAAGCAAGAGAGATGTTTTGGGGGACTCATTTCATTCCTAACACAG ATGTAGATATTGTGAAGTACATATTAGGAAAATATGGGTTGCATTTGGTCAAGATTTTGAATGCTTCCTGACAAT CAACTCTAATAGTGCTTAAAAATCATTGATTGTCAGCTACTAATGATGTTTTCCTATAATAATAAAATATTTAT 

# 2181/2682 FIGURE 1980

 ${\tt MQQPFNYPYPQIYWVDSSASSPWAPPGTVLPCPTSVPRRPGQRRPPPPPPPPPPPPPPPPPPPPPPPPPPPPPLPPLPPLKKRG\\ NHSTGLCLLVMFFMVLVALVGLGLGMFQLFHLQKELAELRESTSQMHTASSLEKQIGHPSPPPEKKELRKVAHLT\\ GKSNSRSMPLEWEDTYGIVLLSGVKYKKGGLVINETGLYFVYSKVYFRGQSCNNLPLSHKVYMRNSKYPQDLVMM\\ EGKMMSYCTTGQMWARSSYLGAVFNLTSADHLYVNVSELSLVNFEESQTFFGLYKL$ 

#### 2182/2682 FIGURE 1981

CTCCCTTTGGGCAAGGACCTGAGACCCTTGTGCTAAGTCAAGAGGCTCAATGGGCTGCAGAAGAACTAGAGAAGG ACCAAGCAAAGCC<u>ATG</u>ATATTTCCATGGAAATGTCAGAGCACCCAGAGGGACTTATGGAACATCTTCAAGTTGTG GGGGTGGACAATGCTCTGTTGTGATTTCCTGGCACATCATGGAACCGACTGCTGGACTTACCATTATTCTGAAAA ACCCATGAACTGGCAAAGGGCTAGAAGATTCTGCCGAGACAATTACACAGATTTAGTTGCCATACAAAACAAGGC GGAAATTGAGTATCTGGAGAAGACTCTGCCTTTCAGTCGTTCTTACTACTGGATAGGAATCCGGAAGATAGGAGG AATATGGACGTGGGTGGGAACCAACAAATCTCTTACTGAAGAAGCAGAGAACTGGGGGAGATGGTGAGCCCAACAA CAAGAAGAACAAGGAGGACTGCGTGGAGATCTATATCAAGAGAACAAAGATGCAGGCAAATGGAACGATGACGC CTGCCACAAACTAAAGGCAGCCCTCTGTTACACAGCTTCTTGCCAGCCCTGGTCATGCAGTGGCCATGGAGAATG TGTAGAAATCATCAATAATTACACCTGCAACTGTGATGTGGGGTACTATGGGCCCCAGTGTCAGTTTGTGATTCA GTGTGAGCCTTTGGAGGCCCCAGAGCTGGGTACCATGGACTGTACTCACCCTTTGGGAAACTTCAGCTTCAGCTC ACAGTGTGCCTTCAGCTGCTCTGAAGGAACAAACTTAACTGGGATTGAAGAAACCACCTGTGGACCATTTGGAAA CTGGTCATCTCCAGAACCAACCTGTCAAGTGATTCAGTGTGAGCCTCTATCAGCACCAGATTTGGGGATCATGAA CTGTAGCCATCCCCTGGCCAGCTTCAGCTTTACCTCTGCATGTACCTTCATCTGCTCAGAAGGAACTGAGTTAAT TGGGAAGAAGAAACCATTTGTGAATCATCTGGAATCTGGTCAAATCCTAGTCCAATATGTCAAAAATTGGACAA AAGTTTCTCAATGATTAAGGAGGGTGATTATAACCCCCTCTTCATTCCAGTGGCAGTCATGGTTACTGCATTCTC ATAT<u>TAA</u>ATCGCCCTTGGTGAAAGAAATTCTTGGAATACTAAAAATCATGAGATCCTTTAAATCCTTCCATGAA ACGTTTTGTGTGGTGGCACCTCCTACGTCAAACATGAAGTGTGTTTCCTTCAGTGCATCTGGGAAGATTTCTACC TGACCAACAGTTCCTTCAGCTTCCATTTCGCCCCTCATTTATCCCTCAACCCCCAGCCCACAGGTGTTTATACAG CTCAGCTTTTTGTCTTTCTGAGGAGAAACAAATAAGACCATAAAGGGAAAGGATTCATGTGGAATATAAAGATG GAAGTGCAAATTTGATACATATGTGAATATGGACTCAGTTTTCTTGCAGATCAAATTTCACGTCGTCTTCTGTAT ACTGTGGAGGTACACTCTTATAGAAAGTTCAAAAAGTCTACGCTCTCCTTTCTTATCTAACTCCAGTGAAGTAATG GGGTCCTGCTCAAGTTGAAAGAGTCCTATTTGCACTGTAGCCTCGCCGTCTGTGAATTGGACCATCCTATTTAAC TGGCTTCAGCCTCCCCACCTTCTTCAGCCACCTCTCTTTTTCAGTTGGCTGACTTCCACACCTAGCATCTCATGA GTGCCAAGCAAAAGGAGAGAAGAGAAATAGCCTGCGCTGTTTTTTAGTTTGGGGGGTTTTGCTGTTTCCTTTTA TGAGACCCATTCCTATTCTTATAGTCAATGTTTCTTTTATCACGATATTATTAGTAAGAAAACATCACTGAAAT GCTAGCTGCAAGTGACATCTCTTTGATGTCATATGGAAGAGTTAAAACAGGTGGAGAAATTCCTTGATTCACAAT GAAATGCTCTCCCTTTCCCCTGCCCCCAGACCTTTTATCCACTTACCTAGATTCTACATATTCTTTAAATTTCATC TCAGGCCTCCCTCAACCCCACCACTTCTTTTATAACTAGTCCTTTACTAATCCAACCCATGATGAGCTCCTCTTC CTGGCTTCTTACTGAAAGGTTACCCTGTAACATGCAATTTTGCATTTGAATAAAGCCTGCTTTTTAAGTGTTAA

## 2183/2682 FIGURE 1982

MIFPWKCQSTQRDLWNIFKLWGWTMLCCDFLAHHGTDCWTYHYSEKPMNWQRARRFCRDNYTDLVAIQNKAEIEY LEKTLPFSRSYYWIGIRKIGGIWTWVGTNKSLTEEAENWGDGEPNNKKNKEDCVEIYIKRNKDAGKWNDDACHKL KAALCYTASCQPWSCSGHGECVEIINNYTCNCDVGYYGPQCQFVIQCEPLEAPELGTMDCTHPLGNFSFSSQCAF SCSEGTNLTGIEETTCGPFGNWSSPEPTCQVIQCEPLSAPDLGIMNCSHPLASFSFTSACTFICSEGTELIGKKK TICESSGIWSNPSPICQKLDKSFSMIKEGDYNPLFIPVAVMVTAFSGLAFIIWLARRLKKGKKSKRSMNDPY

#### 2184/2682 FIGURE 1983A

TAGACGCACCCTCTGAAGATGGTGACTCCCTCCTGAGAAGCTGGACCCCTTGGTAAAAGACAAGGCCTTCTCCAA GAAGAATATGAAAGTGTTACTCAGACTTATTTGTTTCATAGCTCTACTGATTTCTTCTCTGGAGGCTGATAAATG CAAGGAACGTGAAGAAAAAATAATTTTAGTGTCATCTGCAAATGAAATTGATGTTCGTCCCTGTCCTCTTAACCC AAATGAACACAAAGGCACTATAACTTGGTATAAAGATGACAGCAAGACACCTGTATCTACAGAACAAGCCTCCAG GATTCATCAACACAAAGAGAAACTTTGGTTTGTTCCTGCTAAGGTGGAGGATTCAGGACATTACTATTGCGTGGT AAGAAATTCATCTTACTGCCTCAGAATTAAAATAAGTGCAAAATTTGTGGAGAATGAGCCTAACTTATGTTATAA TGCACAAGCCATATTTAAGCAGAAACTACCCGTTGCAGGAGACGGAGGACTTGTGTGCCCCTTATATGGAGTTTTT TAAAAATGAAAATAATGAGTTACCTAAATTACAGTGGTATAAGGATTGCAAACCTCTACTTCTTGACAATATACA CTTTAGTGGAGTCAAAGATAGGCTCATCGTGATGAATGTGGCTGAAAAGCATAGAGGGAACTATACTTGTCATGC CACAAGGCCTGTGATTGTGAGCCCAGCTAATGAGACAATGGAAGTAGACTTGGGATCCCAGATACAATTGATCTG TAATGTCACCGGCCAGTTGAGTGACATTGCTTACTGGAAGTGGAATGGGTCAGTAATTGATGAAGATGACCCAGT ATCGGAAATTGAAAGTAGATTTTATAAACATCCATTTACCTGTTTTGCCAAGAATACACATGGTATAGATGCAGC ATATATCCAGTTAATATATCCAGTCACTAATTTCCAGAAGCACATGATTGGTATATGTGTCACGTTGACAGTCAT AATTGTGTGTTCTGTTTTCATCTATAAAATCTTCAAGATTGACATTGTGCTTTGGTACAGGGATTCCTGCTATGA TTTTCTCCCAATAAAAGCTTCAGATGGAAAGACCTATGACGCATATATACTGTATCCAAAGACTGTTGGGGAAGG GTCTACCTCTGACTGTGATATTTTTGTGTTTAAAGTCTTGCCTGAGGTCTTGGAAAAACAGTGTGGATATAAGCT GTTCATTTATGGAAGGGATGACTACGTTGGGGAAGACATTGTTGAGGTCATTAATGAAAACGTAAAGAAAAGCAG CATGTATAATGCTCTTGTTCAGGATGGAATTAAAGTTGTCCTGCTTGAGCTGGAGAAAATCCAAGACTATGAGAA ACAGTCTGCAAAGACAAGGTTCTGGAAGAATGTCAGGTACCACATGCCAGTCCAGCGACGGTCACCTTCATCTAA  ${\tt ACACCAGTTACTGTCACCAGCCACTAAGGAGAAACTGCAAAGAGAGGCTCACGTGCCTCTCGGG{\color{red}{\bf TAG}CATGGAGA}}$ AGTTGCCAAGAGTTCTTTAGGTGCCTCCTGTCTTATGGCGTTGCAGGCCAGGTTATGCCTCATGCTGACTTGCAG AGTTCATGGAATGTAACTATATCATCCTTTATCCCTGAGGTCACCTGGAATCAGATTATTAAGGGAATAAGCCAT GACGTCAATAGCAGCCCAGGGCACTTCAGAGTAGAGGGCTTGGGAAGATCTTTTAAAAAAGGCAGTAGGCCCGGTG CCAGCCCAGCCAACATGGCAAAACCCCATCTCTACTAAAAATACAAAAATGAGCTAGGCATGGTGGCACACGCCT GTAATCCCAGCTACACCTGAGGCTGAGGCAGGAGAATTGCTTGAACCGGGGAGACGGAGGTTGCAGTGAGCCGAG AATGTTTGAACTGCCAAGAAAAGGCATGGAGACAGCGAACTAGAAGAAAGGGCAAGAAGGAAATAGCCACCGTCT ACAGATGGCTTAGTTAAGTCATCCACAGCCCAAGGGCGGGGCTATGCCTTGTCTGGGGGACCCTGTAGAGTCACTG ACCCTGGAGCGGCTCTCCTGAGAGGTGCTGCAGGCAAAGTGAGACTGACACCTCACTGAGGAAAGGGAGACATATT TATTTTACAGAGCTTGAAAACTCACTTCAATGAACAAAGGGATTCTCCAGGATTCCAAAGTTTTGAAGTCATCTT AGCTTTCCACAGGAGGAGAGAACTTAAAAAAGCAACAGTAGCAGGGAATTGATCCACTTCTTAATGCTTTCCTC CCTGGCATGACCATCCTGTCCTTTGTTATTATCCTGCATTTTACGTCTTTGGAGGAACAGCTCCCTAGTGGCTTC CTCCGTCTGCAATGTCCCTTGCACAGCCCACACATGAACCATCCTTCCCATGATGCCGCTCTTCTGTCATCCCGC TCCTGCTGAAACACCTCCCAGGGGCTCCACCTGTTCAGGAGCTGAAGCCCATGCTTTCCCACCAGCATGTCACTC CCAGACCACCTCCCTGCCCTGTCCTCCAGCTTCCCCTCGCTGTCCTGTTGTGAATTCCCAGGTTGGCCTGGTG GCCATGTCGCCTGCCCCAGCACTCCTCTGTCTCTGCTCTTGCCTCGACCCTTCCTCCTCCTTTGCCTAGGAGGC CTTCTCGCATTTTCTCTAGCTGATCAGAATTTTACCAAAATTCAGAACATCCTCCAATTCCACAGTCTCTGGGAG ACTITCCCTAAGAGGCGACTTCCTCCCAGCCTTCTCTCTCTGGTCAGGCCCACTGCAGAGATGGTGGTGAGCAC ATCTGGGAGGCTGGTCTCCCTCCAGCTGGAATTGCTGCTCTCTGAGGGAGAGGCTGTGGTGGCTGTCTCTGTCCC TCACTGCCTTCCAGGAGCAATTTGCACATGTAACATAGATTTATGTAATGCTTTATGTTAAAAAACATTCCCCAA TCTAAGTTCTATTGAACCTAGGACTTGAGCCTCCATTTCTGGCTTCTAGTCTGGTGTTCTGAGTACTTGATTTCA

#### 2185/2682 FIGURE 1983B

GGTCAATAACGGTCCCCCCCCACTCCACACTGGCACGTTTGTGAGAAGAAATGACATTTTGCTAGGAAGTGACCG AGTCTAGGAATGCTTTTATTCAAGACACCAAATTCCAAACTTCTAAATGTTGGAATTTTCAAAAATTGTGTTTAG ATTTTATGAAAAACTCTTCTACTTTCATCTATTCTTTCCCTAGAGGCAAACATTTCTTAAAATGTTTCATTTTCA TTAAAAATGAAAGCCAAATTTATATGCCACCGATTGCAGGACACAAGCACAGTTTTAAGAGTTGTATGAACATGG AGAGGACTTTTGGTTTTTATATTTCTCGTATTTAATATGGGTGAACACCCAACTTTTATTTGGAATAATTATTTC CTCCTAAACAAAAACACATTGAGTTTAAGTCTCTGACTCTTGCCTTTCCACCTGCTTTCTCCTGGGCCCGCTTTG CTACAGCCAGAAGCCCATGGAGCAGGGATGTCACGTCTTGAAAAGCCTATTAGATGTTTTACAAATTTAATTTTG TAGGTTAGTGACAAAATTGGCCAGAGAGTGGGGGTGATGATGACCAAGAATTACAAGTAGAATGGCAGCTGGAAT TTAAGGAGGACAAGAATCAATGGATAAGCGTGGGTGGAGGAAGATCCAAACAGAAAAGTGCAAAGTTATTCCCC ATCTTCCAAGGGTTGAATTCTGGAGGAAGAAGACACATTCCTAGTTCCCCGTGAACTTCCTTTGACTTATTGTCC TTTTAAAGATGCCCTAAGTGTTGAAGAAGAGTTTGCAAATGCAACAAAAATATTTAATTACCGGTTGTTAAAACT GGTTTAGCACAATTTATATTTCCCTCTCTTGCCTTTCTTATTTGCAATAAAAGGTATTGAGCCATTTTTTAAAT TTTCCAATAAATTTTCAAACTTTGTACTGTTAAA

#### 2186/2682 FIGURE 1984

MKVLLRLICFIALLISSLEADKCKEREEKIILVSSANEIDVRPCPLNPNEHKGTITWYKDDSKTPVSTEQASRIH QHKEKLWFVPAKVEDSGHYYCVVRNSSYCLRIKISAKFVENEPNLCYNAQAIFKQKLPVAGDGGLVCPYMEFFKN ENNELPKLQWYKDCKPLLLDNIHFSGVKDRLIVMNVAEKHRGNYTCHASYTYLGKQYPITRVIEFITLEENKPTR PVIVSPANETMEVDLGSQIQLICNVTGQLSDIAYWKWNGSVIDEDDPVLGEDYYSVENPANKRRSTLITVLNISE IESRFYKHPFTCFAKNTHGIDAAYIQLIYPVTNFQKHMIGICVTLTVIIVCSVFIYKIFKIDIVLWYRDSCYDFL PIKASDGKTYDAYILYPKTVGEGSTSDCDIFVFKVLPEVLEKQCGYKLFIYGRDDYVGEDIVEVINENVKKSRRL IIILVRETSGFSWLGGSSEEQIAMYNALVQDGIKVVLLELEKIQDYEKMPESIKFIKQKHGAIRWSGDFTQGPQS AKTRFWKNVRYHMPVQRRSPSSKHQLLSPATKEKLQREAHVPLG

#### 2187/2682 FIGURE 1985

# 2188/2682 FIGURE 1986

 $\label{thm:lhlsl} {\tt MRMLLHLSLLALGAAYVYAIPTEIPTSALVKETLALLSTHRTLLIANETLRIPVPVHKNHQLCTEEIFQGIGTLE} \\ {\tt SQTVQGGTVERLFKNLSLIKKYIDGQKKKCGEERRRVNQFLDYLQEFLGVMNTEWIIES} \\$ 

#### 2189/2682 FIGURE 1987

GTAATGCAGAGATAATAAAACTTCTTAGGTCCATAGGTCTTATAATAATTTAATAACCTAAACATGGTATACAAA TTCCTCCAAACCCAATAACATAATTATAGTTTCAAAAAGTTCCCCAAACTTTCAAGTTAGATTTTATTGCTTTGA TGAGTGGCTTTAAATATGAAAAGTCTTGCCTGTGAAGGGCAATCCTTTTCCCGTGGACTGGGATCTATAGAAATA ATACCCCCTAATCTTGGTCAGCTGATTATGACAGGCAGACAGCACAGTAAATAACACTATATATTAAGAAAACCC AAAGCATATGTATCAATGGTATATACCCAACAGCATCCTAGGAATGGAGAGTCTGTAGCAAGGGCCTCCAATGTG AAGGTCAACACAGTCACTGTGATGCGTGTATTTCCATTTTGTAAAGCATGATCTCTGGTGGTCATTTTTATCTTC GGTCCCGCTCGAGCCCGTCCTTCCCCTCTGCCCGCCCCCAGCCCTCGCCCCACCCTCGGCGCCCACATC CTCTGAAGGTGTGCCTGAACCAGTGCCAGCCTGCCCTGTCTGCAGCATCGGCCTGATGGGGTGGTGACTGATCCC TCAGGGCTCCGGAGCCATGTGGCCCAACGGCAGTTCCCTGGGGCCCTGTTTCCGGCCCACAAACATTACCCTGGA GGAGAGACGGCTGATCGCCTCGCCTGGTTCGCCGCCTCCTTCTGCGTGGTGGGCCTGGCCTCCAACCTGCTGGC CCTGAGCGTGCTGGCGGGCGCGCGGGGGGGGTTCGCACACGCGCTCCTCCTCCTCACCTTCCTCTGCGGCCT CGTCCTCACCGACTTCCTGGGGCTGCTGGTGACCGGTACCATCGTGGTGTCCCAGCACGCCGCGCTCTTCGAGTG GCACGCCGTGGACCCTGGCTGCCGTCTCTGTCGCTTCATGGGCCGTCGTCATGATCTTCTTCGGCCTGTCCCCGCT GCTGCTGGGGGCCCCATGGCCTCAGAGCGCTACCTGGGTATCACCCGGCCCTTCTCGCGCCCCGGCGGTCGCCTC CGTGGGTCGCTACACCGTGCAATACCCGGGGTCCTGGTGCTTCCTGACGCTGGGCGCCGAGTCCGGGGACGTGGC CACCCTGTGCCACGTCTACCACGGGCAGGAGGCGGCCCAGCAGCGTCCCCGGGACTCCGAGGTGGAGATGATGGC TCAGCTCCTGGGGATCATGGTGGTGGCCAGCGTGTGTTGGCTGCCCCTTCTGGTCTTCATTGCCCAGACAGTGCT GCGAAACCCGCCTGCCATGAGCCCCGCCGGGCAGCTGTCCCGCACCACGGAGAAGGAGCTGCTCATCTACTTGCG AGTGGACAGAGCGCCCCCCCCGCGCCTTTCCGCGGAGCCCTTGGCCCCTCGGACAGCCCATCTGCCTGTTCTGAG GATTCAGGGGCTGGGGGTGCTGGATGGACAGTGGGCATCAGCAGCAGGGTTTTGGGTTGACCCCAATCCAACCCG GGGACCCCCAACTCCTCCCTGATCCTTTTACCAAGCACTCTCCCTTCCTCGGCCCCTTTTTCCCCATCCAGAGCTC CCACCCTTCTCTGCGTCCCTCCCAACCCCAGGAAGGGCATGCAGACATTGGAAGAGGGTCTTGCATTGCTATTT TTTTTTTTAGACGGAGTCTTGCTCTGTCCCCCAGGCTGGAGTGCAGTGGCGCAATCTCAGCTCACTGCAACCTCC GGCTAATTTTTGTATTTTAGTAGAGACGGGGTTTCACCGTGTTGGCCAGGCTGGTCTTGAACTCCTGACCTCAG TTTTTTAGACGGAGTCTCACTCTGTGGCCCAGCCTGGAGTACAGTGGCACGATCTCGGCTCACTGCAACCTCCGC CTCCCGGGTTCAAGCGATTCTCGTGCCTCAGCCTCCCGAGCAGCTGGGATTACAGGCGTAAGCCACTGCGCCCGG CCTTGCATGCTCTTTGACCCTGAATTTGACCTACTTGCTGGGGTACAGTTGCTTCCTTTTGAACCTCCAACAGGG AAGGCTCTGTCCAGAAAGGATTGAATGTGAAACGGGGGCACCCCCTTTTCTTGCCAAAATATATCTCTGCCTTTG **GTTTTAT** 

#### 2190/2682 FIGURE 1988

MWPNGSSLGPCFRPTNITLEERRLIASPWFAASFCVVGLASNLLALSVLAGARQGGSHTRSSFLTFLCGLVLTDF LGLLVTGTIVVSQHAALFEWHAVDPGCRLCRFMGVVMIFFGLSPLLLGAAMASERYLGITRPFSRPAVASQRRAW ATVGLVWAAALALGLLPLLGVGRYTVQYPGSWCFLTLGAESGDVAFGLLFSMLGGLSVGLSFLLNTVSVATLCHV YHGQEAAQQRPRDSEVEMMAQLLGIMVVASVCWLPLLVFIAQTVLRNPPAMSPAGQLSRTTEKELLIYLRVATWN QILDPWVYILFRRAVLRRLQPRLSTRPRSLSLQPQLTQRSGLQ

#### 2191/2682 FIGURE 1989

# 2192/2682 FIGURE 1990

MLQMAGQCSQNEYFDSLLHACIPCQLRCSSNTPPLTCQRYCNASVTNSVKGTNAILWTCLGLSLIISLAVFVLMF LLRKISSEPLKDEFKNTGSGLLGMANIDLEKSRTGDEIILPRGLEYTVEECTCEDCIKSKPKVDSDHCFPLPAME EGATILVTTKTNDYCKSLPAALSATEIEKSISAR

#### 2193/2682 FIGURE 1991A

CGCGTCCTCCTCGCCGCGCTGGGACTGCTGTTCCTGGGGGGCGCTACGAGCCTTCCCACAGGATCGACCCTTCGAG GACACCTGTCATGGAAACCCCAGCCACTACTATGACAAGGCTGTCAGGAGGTGCTGTTACCGCTGCCCCATGGGG GAGGCCGACCGCTGTACAGCCTGCGTGACTTGTTCTCGAGATGACCTCGTGGAGAAGACGCCGTGTGCATGGAAC TCCTCCCGTGTCTGCGAATGTCGACCCGGCATGTTCTGTTCCACGTCTGCCGTCAACTCCTGTGCCCGCTGCTTC TTCCATTCTGTCTGTCCGGCAGGGATGATTGTCAAGTTCCCAGGCACGGCGCAGAAGAACACGGTCTGTGAGCCG GCTTCCCCAGGGGTCAGCCCTGCCTGTGCCAGCCCAGAGAACTGCAAGGAACCCTCCAGTGGCACCATCCCCCAG GCCAAGCCCACCCGGTGTCCCCAGCAACCTCCAGTGCCAGCACCATGCCTGTAAGAGGGGGCACCCGCCTCGCC CTGTCCCCAACACAGCCATGCCCAGAGGGGTCTGGTGATTGCAGAAAGCAGTGTGAGCCCGACTACTACCTGGAC GAGGCCGGCCGCTGCACAGCCTGCGTGAGCTGTTCTCGAGATGACCTTGTGGAGAAGACGCCATGTGCATGGAAC TCCTCCCGCACCTGCGAATGTCGACCTGGCATGATCTGTGCCACATCAGCCACCCAACTCCTGTGCCCGCTGTGTC CCCTACCCAATCTGTGCAGCAGAGACGGTCACCAAGCCCCAGGATATGGCTGAGAAGGACACCACCTTTGAGGCG CCACCCTGGGGACCCAGCCGGACTGCAACCCCACAGAGAATGGCGAGGCGCCTGCCAGCACCAGCCCCACT CAGAGCTTGCTGGTGGACTCCCAGGCCAGTAAGACGCTGCCCATCCCAACCAGCGCTCCCGTCGCTCTCCTCCC AGCGCCTTCCTCCTGTGCCACCGGAGGGCCTGCAGGAAGCGAATTCGGCAGAAGCTCCACCTGTGCTACCCGGTC CAGACCTCCCAGCCCAAGCTAGAGCTTGTGGATTCCAGACCCAGGAGGAGCTCAACGCAGCTGAGGAGTGGTGCG GAGCCCCGGGTGTCCACGGAGCACCACTAACAAGATTGAGAAAATCTACATCATGAAGGCTGACACCGTGATC GTGGGGACCGTGAAGGCTGAGCTGCCGGAGGGCCGGGGCCTGGCGGGGCCAGCAGAGCCCGAGTTGGAGGAGGAG CTGGAGGCGGACCATACCCCCACTACCCCGAGCAGGAGACAGAACCGCCTCTGGGCAGCTGCAGCGATGTCATG CTCTCAGTGGAAGAGGAAGGAAGAAGACCCCTTGCCCACAGCTGCCTCTGGAAAG ${f TGA}$ GGCCTGGGCTGGGCT GGGGCTAGGAGGGCAGCAGGGTGGCCTCTGGGAGGCCAGGATGGCACTGTTGGCACCGAGGTTGGGGGCAGAGGC TTGCATCCCCAACTTAGCTGTCCCCTGACCCAGAGCCTAGGGGATCCGGGGCTTGTACAGAAGAGACAGTCCAAG GGGACTGGATCCCAGCAGTGATGTTGGTTGAGGCAGCAAACAGATGGCAGGATGGGCACTGCCGAGAACAGCATT GGTCCCAGAGCCCTGGGCATCAGACCTTAACCACCAGGCCCACAGCCCAGCGAGGGAGAGGTCGTGAGGCCAGCT CCCGGGGCCCCTGTAACCCTACTCTCTCTCTCCCTGGACCTCAGAGGTGACACCCATTGGGCCCTTCCGGCATG CCCCCAGTTACTGTAAATGTGGCCCCCAGTGGGCATGGAGCCAGTGCCTGTGGTTGTTTCTCCAGAGTCAAAAGG GAAGTCGAGGGATGGGGCGTCGTCAGCTGGCACTGTCTCTGCTGCAGCGGCCACACTGTACTCTGCACTGGTGTG AGGGCCCCTGCCTGGACTGTGGGACCCTCCTGGTGCTGCCCACCTTCCCTGTCCTGTAGCCCCCTCGGTGGGCCC AGGGCCTAGGGGCCCAGGATCAAGTCACTCATCTCAGAATGTCCCCACCAATCCCCGCCACAGCAGCCGCCTCGG GTCCCAGATGTCTGCAGCCCTCAGCAGCTGCAGACCGCCCCTCACCAACCCAGAGAACCTGCTTTACTTTGCCCA CCCACTCTGTCCTGGGAAATGAAGAAGCATCTTCCTTAGGTCTGCCCTGCTTGCAAATCCACTAGCACCGACCCC ACCACCTGGTTCCGGCTCTGCACGCTTTGGGGTGTGGATGTCGAGAGGCACCACGGCCTCACCCAGGCATCTGCT TTACTCTGGACCATAGGAAACAAGACCGTTTGGAGGTTTCATCAGGATTTTGGGTTTTTCACATTTCACGCTAAG GAGTAGTGGCCCTGACTTCCGGTCGGCTGGCCAGCTGACTCCCTAGGGCCTTCAGACGTGTATGCAAATGAGTGA GGCTGCTGTTTACTCATCGGGCAGCCACGTGCTCTCTGGAGGAAGTGATAGTTTCTGAAACCGCTCAGATGTTTT GGGGAAAGTTGGAGAAGCCGTGGCCTTGCGAGAGGTGGTTACACCAGAACCTGGACATTGGCCAGAAGAAGCTTA AGTGGGCAGACACTGTTTGCCCAGTGTTTGTGCAAGGATGGAGTGGGTGTCTCTGCATCACCCACAGCCGCAGCT 

2194/2682 FIGURE 1991B

CAACAAAATAATGCACTTCCTTAAAAAAAA

### 2195/2682 FIGURE 1992

MRVLLAALGLLFLGALRAFPQDRPFEDTCHGNPSHYYDKAVRRCCYRCPMGLFPTQQCPQRPTDCRKQCEPDYYL DEADRCTACVTCSRDDLVEKTPCAWNSSRVCECRPGMFCSTSAVNSCARCFFHSVCPAGMIVKFPGTAQKNTVCE PASPGVSPACASPENCKEPSSGTIPQAKPTPVSPATSSASTMPVRGGTRLAQEAASKLTRAPDSPSSVGRPSSDP GLSPTQPCPEGSGDCRKQCEPDYYLDEAGRCTACVSCSRDDLVEKTPCAWNSSRTCECRPGMICATSATNSCARC VPYPICAAETVTKPQDMAEKDTTFEAPPLGTQPDCNPTPENGEAPASTSPTQSLLVDSQASKTLPIPTSAPVALS STGKPVLDAGPVLFWVILVLVVVVGSSAFLLCHRRACRKRIRQKLHLCYPVQTSQPKLELVDSRPRRSSTQLRSG ASVTEPVAEERGLMSQPLMETCHSVGAAYLESLPLQDASPAGGPSSPRDLPEPRVSTEHTNNKIEKIYIMKADTVIVGTVKAELPEGRGLAGPAEPELEEELEADHTPHYPEQETEPPLGSCSDVMLSVEEEGKEDPLPTAASGK

### 2196/2682 FIGURE 1993

ATG GCACTGACTGCCCACCCCTCCTGCCTCCTGGCCCTGTTGGTGGCAGGCCTAGCCCAAGGCATCAGAGGCCCC  $\tt CTTAGGGCCCAGGACCTAGGTCCCCAGCCGCTAGAGCTGAAAGAGGCCTTCAAGTTGTTCCAGATCCAGTTCAAC$  $\tt CGGAGTTACCTGAGCCCAGAAGAGCATGCTCACCGCCTGGACATCTTTGCCCACAACCTGGCCCAGGCTCAGAGG$ CTGCAGGAGGAGGACTTGGGCACAGCTGAGTTTGGGGTGACTCCATTCAGTGACCTCACAGAGGAGGAGTTTGGC CAGCTCTATGGCTATCGGAGGGCAGCTGGAGGGGTCCCCAGCATGGGCAGAGAAATAAGGTCTGAAGAGCCAGAG GAGTCAGTACCTTTCAGCTGTGACTGGCGGAAGGTGGCCGGCGCCATCTCACCCATCAAGGACCAGAAAAACTGC GTCTCCGTGCATGAACTGCTGGACTGTGGCCGCTGTGGGGATGGCTGCCACGGTGGCTTCGTCTGGGACGCGTTC ATAACTGTCCTCAACAACAGCGGCCTGGCCAGTGAAAAGGACTACCCGTTCCAGGGCAAAGTCAGAGCCCACAGG TGCCACCCCAAGAAGTACCAGAAGGTGGCCTGGATCCAGGACTTCATCATGCTGCAGAACAACGAGCACAGAATT GCGCAGTACCTGGCCACTTATGGCCCCATCACCGTGACCATCAACATGAAGCCCCTTCAGCTATACCGGAAAGGT GTGATCAAGGCCACCACCACCTGTGACCCCCAGCTTGTGGACCACTCTGTCCTGGTGGGTTTTGGCAGC GTCAAGTCAGAGGAGGGGATATGGGCAGAGACAGTCTCATCGCAGTCTCAGCCTCAGCCTCCACACCCCACCCCA TACTGGATCCTGAAGAACTCCTGGGGGGCCCAATGGGGAGAAGGGCTATTTCCGGCTGCACCGAGGGAGCAAT ACCTGTGGCATCACCAAGTTCCCGCTCACTGCCCGTGTGCAGAAACCGGATATGAAGCCCCGAGTCTCCTGCCCT CCCTGA

### 2197/2682 FIGURE 1994

MALTAHPSCLLALLVAGLAQGIRGPLRAQDLGPQPLELKEAFKLFQIQFNRSYLSPEEHAHRLDIFAHNLAQAQR LQEEDLGTAEFGVTPFSDLTEEEFGQLYGYRRAAGGVPSMGREIRSEEPEESVPFSCDWRKVAGAISPIKDQKNC NCCWAMAAAGNIETLWRISFWDFVDVSVHELLDCGRCGDGCHGGFVWDAFITVLNNSGLASEKDYPFQGKVRAHR CHPKKYQKVAWIQDFIMLQNNEHRIAQYLATYGPITVTINMKPLQLYRKGVIKATPTTCDPQLVDHSVLLVGFGS VKSEEGIWAETVSSQSQPQPPHPTPYWILKNSWGAQWGEKGYFRLHRGSNTCGITKFPLTARVQKPDMKPRVSCP P

### 2198/2682 FIGURE 1995

ACTCGTCTCTGGTAAAGTCTGAGCAGGACAGGGTGGCTGACTGGCAGATCCAGAGGTTCCCTTGGCAGTCCACGC  $\texttt{CAGGCCTTCACC} \underline{\textbf{ATG}} \texttt{GATCAGTTCCCTGAATCAGTGACAGAAAACTTTGAGTACGATGATTTGGCTGAGGCCTGT}$ TATATTGGGGACATCGTGGTCTTTGGGACTGTGTTCCTGTCCATATTCTACTCCGTCATCTTTGCCATTGGCCTG GTGGGAAATTTGTTGGTAGTGTTTGCCCTCACCAACAGCAAGAAGCCCCAAGAGTGTCACCGACATTTACCTCCTG AACCTGGCCTTGTCTGATCTGCTGTTTGTAGCCACTTTGCCCTTCTGGACTCACTATTTGATAAATGAAAAGGGC CTCCACAATGCCATGTGCAAATTCACTACCGCCTTCTTCTTCATCGGCTTTTTTTGGAAGCATATTCTTCATCACC GTCATCAGCATTGATAGGTACCTGGCCATCGTCCTGGCCGCCAACTCCATGAACAACCGGACCGTGCAGCATGGC GTCACCATCAGCCTAGGCGTCTGGGCAGCAGCCATTTTGGTGGCAGCACCCCAGTTCATGTTCACAAAGCAGAAA GAAAATGAATGCCTTGGTGACTACCCCGAGGTCCTCCAGGAAATCTGGCCCGTGCTCCGCAATGTGGAAACAAAT TTTCTTGGCTTCCTACTCCCCCTGCTCATTATGAGTTATTGCTACTTCAGAATCATCCAGACGCTGTTTTCCTGC AAGAACCACAAGAAAGCCAAAGCCATTAAACTGATCCTTCTGGTGGTCATCGTGTTTTTCCTCTTCTGGACACCC AGGCTGGCCCTCAGTGTGACTGAGACGGTTGCATTTAGCCATTGTTGCCTGAATCCTCTCATCTATGCATTTGCT GGGGAGAAGTTCAGAAGATACCTTTACCACCTGTATGGGAAATGCCTGGCTGTCCTGTGTGGGCGCTCAGTCCAC AGTGATGGAGATGCATTGCTCCTTCTC<u>TGA</u>AGGGAATCCCAAAGCCTTGTGTCTACAGAGAACCTGGAGTTCCTG AACCTGATGCTGACTAGTGAGGAAAGATTTTTGTTGTTATTTCTTACAGGCACAAAATGATGGACCCAATGCACA CAAAACAACCCTAGAGTGTTGTTGAGAATTGTGCTCAAAATTTGAAGAATGAACAAATTGAACTCTTTGAATGAC AAAGAGTAGACATTTCTCTTACTGCAAATGTCATCAGAACTTTTTTGGTTTGCAGATGACAAAAATTCAACTCAGA CTAGTTTAGTTAAATGAGGGTGGTGAATATTGTTCATATTGTGGCACAAGCAAAAGGGTGTCTGAGCCCTCAAAG CCCCAGACTTTACATGACACAGCTTTATCACCAGAGAGGGACTGACACCCATGTTTCTCTGGCCCCAAGGGAAAA TTCCCAGGGAAGTGCTCTGATAGGCCAAGTTTGTATCAGGTGCCCATCCCTGGAAGGTGCTGTTATCCATGGGGA AGGGATATATAAGATGGAAGCTTCCAGTCCAATCTCATGGAGAAGCAGAAATACATATTTCCAAGAAGTTGGATG GGTGGGTACTATTCTGATTACACAAAACAAATGCCACACATCACCCTTACCATGTGCCTGATCCAGCCTCTCCCC TGATTACACCAGCCTCGTCTTCATTAAGCCCTCTTCCATCATGTCCCCAAACCTGCAAGGGCTCCCCACTGCCTA CTGCATCGAGTCAAAACTCAAATGCTTGGCTTCTCATACGTCCACCATGGGGTCCTACCAATAGATTCCCCATTG CCTCCTCCTTCCCAAAGGACTCCACCCATCCTATCAGCCTGTCTTCCATATGACCTCATGCATCTCCACCTGC GCTTGGGACAAATCAAGCTTCAGTTTCCTGGTCTGTAGAAGAGGGATAAGGTACCTTTCACATAGAGATCATCCT TTCCAGCATGAGGAACTAGCCACCAACTCTTGCAGGTCTCAACCCTTTTGTCTGCCTCTTAGACTTCTGCTTTCC ACACCTGCACTGCTGCTGCTGCCCAAGTTGTGGTGCTGACAAAGCTTGGAAGAGCCTGCAGGTGCCTTGGCCGC GTGCATAGCCCAGACACAGAAGAGGCTGGTTCTTACGATGGCACCCAGTGAGCACTCCCAAGTCTACAGAGTGAT AGCCTTCCGTAACCCAACTCTCCTGGACTGCCTTGAATATCCCCTCCCAGTCACCTTGTGCAAGCCCCTGCCCAT CCTAGAAACGTTTGGAACAATGTAAAACTTTAAAGCTCGAAAACAATTGTAATAATGCTAAAGAAAAAGTCATCC AATCTAACCACATCAATATTGTCATTCCTGTATTCACCCGTCCAGACCTTGTTCACACTCTCACATGTTTAGAGT TGCAATCGTAATGTACAGATGGTTTTATAATCTGATTTGTTTTTCCTCTTAACGTTAGACCACAAATAGTGCTCGC TTTCTATGTAGTTTGGTAATTATCATTTTAGAAGACTCTACCAGACTGTGTATTCATTGAAGTCAGATGTGGTAA TTCCTTCAAGATCATGTACCCCAATTTACTTGCCATTACTCAATTGATAAACATTTAACTTGTTTCCAATGTTTA GCAAATACATATTTTATAGAACTTC

### 2199/2682 FIGURE 1996

MDQFPESVTENFEYDDLAEACYIGDIVVFGTVFLSIFYSVIFAIGLVGNLLVVFALTNSKKPKSVTDIYLLNLAL SDLLFVATLPFWTHYLINEKGLHNAMCKFTTAFFFIGFFGSIFFITVISIDRYLAIVLAANSMNNRTVQHGVTIS LGVWAAAILVAAPQFMFTKQKENECLGDYPEVLQEIWPVLRNVETNFLGFLLPLLIMSYCYFRIIQTLFSCKNHK KAKAIKLILLVVIVFFLFWTPYNVMIFLETLKLYDFFPSCDMRKDLRLALSVTETVAFSHCCLNPLIYAFAGEKF RRYLYHLYGKCLAVLCGRSVHVDFSSSESQRSRHGSVLSSNFTYHTSDGDALLLL

### 2200/2682 FIGURE 1997

 ${\tt GCGGAAGGAACCGCCGGGGGCC}$ GACCAAGAGGTGGAGGAAGACCTGGGCCGTGCTCTACCCGGCCAGTCCCCACGGCGTAGCGCGGCTCGAGTTCTT TGACCATAAGGGGTCGAGCTCTGGGGGTGGCCGAGGGAGCTCGCGCCCGGCCTGGACTGCAAAGTGATCCGTCTGGC TGAGTGTGTGAGTGTGGCCCCCGTCACCGTGGAGACCCCCCCTGAGCCCGGCGCCACTGCCTTCCGCCTGGACAC TGCTCAGCGCTCGCACCTGCTGGCGGCCGACGCGCCGTCCAGTGCAGCCTGGGTGCAGACGCTGTGCCGAAACGC CTTTCCGAAAGGCAGCTGGACTCTGGCGCCTACCGATAACCCACCTAAGCTTTCTGCCCTGGAGATGCTGGAGAA CTCCTTGTACAGCCCTACCTGGGAAGGATCCCAATTCTGGGTAACGGTGCAGAGGACTGAGGCCGCCGAGCGCTG TGGCCTGCATGGCTCCTACGTGCTGAGGGTGGAGGCTGAAAGGCTGACTCTCCTGACCGTGGGGGCCCAGAGTCA GATACTGGAGCCACTCCTGTCCTGGCCCTACACTCTGTTGCGTCGCTATGGCCGGGACAAGGTCATGTTCTCTTT CGAGGCCGGCCGCCGCCCCCCAGGCCCTGGAACCTTCACCTTCCAGACGGCACAGGGAAATGACATCTTCCA GGCAGTTGAGACTGCCATCCACCGGCAGAAGGCCCAGGGGAAAGGCCGGACAGGGGCACGATGTTCTCAGAGCTGA CTCCCATGAAGGGGAGGTGGCAGAGGGGAAGTTGCCTTCCCCACCTGGCCCCCAAGAGCTCCTCGACAGTCCCCC AGCCCTGTATGCTGAGCCCTTAGACTCCCTGCGCATTGCTCCATGCCCTTCCCAGGACTCCCTATACTCAGACCC CTTGGACAGCACGTCTGCTCAGGCAGGAGAGGGAGTACAACGGAAGAAACCTCTCTATTGGGACTTGTATGAGCA TGCGCAGCAGCAGTTGCTGAAGGCCAAGCTGACAGACCCCAAAGAGGGATCCCATCTATGATGAACCTGAGGGCCT GGCCCCAGTCCCTCCCCAGGGCCTTTATGATCTGCCTCGGGAGCCCAAGGATGCATGGTGGTGCCAAGCTCGGGT GAAGGAGGAGGGCTATGAGCTCCCCTACAACCCTGCCACTGATGACTACGCTGTGCCACCCCCTCGGAGCACAAA GCCCCTCCTTGCTCCCAAGCCCCAGGGCCCAGCCTTCCCTGAACCTGGTACTGCAACTGGCAGTGGCATCAAAAG CCACAACTCAGCCCTGTACAGCCAGGTCCAGAAGAGCGGGGCCTCAGGGAGCTGGGGACTGTGGGCTCTCTAGAGT  ${\tt AGGGACTGACAAGACTGGGGTCAAGTCAGAGGGCTCTACC}{{\tt TGA}{\tt GAAGGACGGCAAGGCTGAGGTGGCTAAGGGGG}}$ ACCATGGGGAGGTGGCACTAGGGATCAAAGAAGATGGTTAGAACCAGCAGAAGCCAGAGGGTGGGAGGGCCATG CTGTGTGAGACCAGGGGACCAGAGGGATGGGAGGTCAAGGGAAGGACAATCCCAGGAAGTCCTAAGAAGTGGGG CAGATGGCAGGGCTGAGGATGGGCTCTGCATCCCCAAAGCCATCCCTTCCCTACTTCCCCAAATGAAGGGACGG GGGAGATGTTGGACTGTGCCTGGATCCTTACTCCTGCATTGTTCTTTGCCAGAGACCTATTTAAAAATTTTAAAA TTCTCATTAAAGTCAAAAAAAAAAAAAAAAAAAAA

### 2201/2682 FIGURE 1998

MDGAVMEGPLFLQSQRFGTKRWRKTWAVLYPASPHGVARLEFFDHKGSSSGGGRGSSRRLDCKVIRLAECVSVAP
VTVETPPEPGATAFRLDTAQRSHLLAADAPSSAAWVQTLCRNAFPKGSWTLAPTDNPPKLSALEMLENSLYSPTW
EGSQFWVTVQRTEAAERCGLHGSYVLRVEAERLTLLTVGAQSQILEPLLSWPYTLLRRYGRDKVMFSFEAGRRCP
SGPGTFTFQTAQGNDIFQAVETAIHRQKAQGKAGQGHDVLRADSHEGEVAEGKLPSPPGPQELLDSPPALYAEPL
DSLRIAPCPSQDSLYSDPLDSTSAQAGEGVQRKKPLYWDLYEHAQQQLLKAKLTDPKEDPIYDEPEGLAPVPPQG
LYDLPREPKDAWWCQARVKEEGYELPYNPATDDYAVPPPRSTKPLLAPKPQGPAFPEPGTATGSGIKSHNSALYS
QVQKSGASGSWDCGLSRVGTDKTGVKSEGST

### 2202/2682 FIGURE 1999

### 2203/2682 FIGURE 2000

MERPSLRALLLGAAGLLLLLLPLSSSSSSDTCGPCEPASCPPLPPLGCLLGETRDACGCCPMCARGEGEPCGGGG AGRGYCAPGMECVKSRKRRKGKAGAAAGGPGVSGVCVCKSRYPVCGSDGTTYPSGCQLRAASQRAESRGEKAITQ VSKGTCEQGPSIVTPPKDIWNVTGAQVYLSCEVIGIPTPVLIWNKVKRGHYGVQRTELLPGDRDNLAIQTRGGPE KHEVTGWVLVSPLSKEDAGEYECHASNSQGQASASAKITVVDALHEIPVKKGEGAEL

### 2204/2682 FIGURE 2001

GAGACATTCCTCAATTGCTTAGACATATTCTGAGCCTACAGCAGAGGAACCTCCAGTCTCAGCACC<u>ATG</u>AATCAA CGCTGTACCTGCATCAGCATTAGTAATCAACCTGTTAATCCAAGGTCTTTAGAAAAACTTGAAATTATTCCTGCA AGCCAATTTTGTCCACGTGTTGAGATCATTGCTACAATGAAAAAGAAGGGTGAGAAGAGATGTCTGAATCCAGAA  ${\tt TCGAAGGCCATCAAGAATTTACTGAAAGCAGTTAGCAAGGAAATGTCTAAAAGATCTCCT} \underline{{\tt TAA}}{\tt AACCAGAGGGGA}$ GCAAAATCGATGCAGTGCTTCCAAGGATGGACCACACAGAGGCTGCCTCTCCCATCACTTCCCTACATGGAGTAT ATGTCAAGCCATAATTGTTCTTAGTTTGCAGTTACACTAAAAGGTGACCAATGATGGTCACCAAATCAGCTGCTA CTACTCCTGTAGGAAGGTTAATGTTCATCCTAAGCTATTCAGTAATAACTCTACCCTGGCACTATAATGTAA GCTCTACTGAGGTGCTATGTTCTTAGTGGATGTTCTGACCCTGCTTCAAATATTTCCCTCACCTTTCCCATCTTC CAAGGGTACTAAGGAATCTTTCTGCTTTGGGGTTTATCAGAATTCTCAGAATCTCAAATAACTAAAAGGTATGCA ATCAAATCTGCTTTTTAAAGAATGCTCTTTACTTCATGGACTTCCACTGCCATCCTCCCAAGGGGCCCAAATTCT CTTATTTAATGAAAGACTGTACAAAGTATAAGTCTTAGATGTATATATTTCCTATATTGTTTTCAGTGTACATGG CTATCTAAATGTTGAAAGATCAAAAGGTTAATAAAGTAATTATAACT

## 2205/2682 FIGURE 2002

 ${\tt MNQTAILICCLIFLTLSGIQGVPLSRTVRCTCISISNQPVNPRSLEKLEIIPASQFCPRVEIIATMKKKGEKRCL}\\ {\tt NPESKAIKNLLKAVSKEMSKRSP}$ 

### 2206/2682 FIGURE 2003

 $\tt CTGGGTCATGTGCCGCTTCTACAAAGTGATGGACGCCCTGGAGCCCGCCGACTGGTGCCAGTTCGCCGCCCTGAT$  $\tt CGTGCGGGACCAGACCGAGCTGCGGCTGTGCGAGCGCTCCGGGCAGCGCCAGCGTCCTGTGGCCCTGGAT$ CAACCGCAACGCCCGTGTGGCCGACCTCGTGCACATCCTCACGCACCTGCAGCTGCTCCGTGCGCGGGACATCAT  $\tt CTGGCCCCTCTGTGAGATTTCCCGGGGCACCCACAACTTCTCGGAGGAGCTCAAGATCGGGGAGGGTGGCTTTGG$ GTGCGTGTACCGGGCGGTGATGAGGAACACGGTGTATGCTGTGAAGAGGCTGAAGGAGAACGCTGACCTGGAGTG GACTGCAGTGAAGCAGAGCTTCCTGACCGAGGTGGAGCAGCTGTCCAGGTTTCGTCACCCAAACATTGTGGACTT TGCTGGCTACTGTGCTCAGAACGGCTTCTACTGCCTGGTGTACGGCTTCCTGCCCAACGGCTCCCTGGAGGACCG TCTCCACTGCCAGACCCAGGCCTGCCCACCTCTCTCTGGCCTCAGCGACTGGACATCCTTCTGGGTACAGCCCG GGCAATTCAGTTTCTACATCAGGACAGCCCCAGCCTCATCCATGGAGACATCAAGAGTTCCAACGTCCTTCTGGA TGAGAGGCTGACACCCAAGCTGGGAGACTTTGGCCTGGCCCGGTTCAGCCGCTTTGCCGGGTCCAGCCCAGCCA GAGCAGCATGGTGGCCCGGACACAGACAGTGCGGGGCACCCTGGCCTACCTGCCCGAGGAGTACATCAAGACGGG  ${\tt AAGGCTGGCTGTGGACACGGACACCTTCAGCTTTGGGGTGGTAGTGCTAGAGACCTTGGCTGGTCAGAGGGCTGT}$ GAAGACGCACGGTGCCAGGACCAAGTATCTGAAAGACCTGGTGGAAGAGGAGGCTGAGGAGGCTGGAGTGGCTTT GAGAAGCACCCAGAGCACTGCAAGCAGGTCTGGCTGCAGATGCCTGGGCTGCTCCCATCGCCATGCAGATCTA CAAGAAGCACCTGGACCCCAGGCCCGGGCCCTGCCCACCTGAGCTGGGCCTGGGCCTGGGCCAGCTGCCTG GGTGGCGGGGGTGCCCGGGCATTTGGAGGCCGCCAGCTGCATCCCCCCTTCCCCGCAGGAGAACTCCTACGTGTC AGCAGAGCAGCTGCAGAGAGGCCCCAACCAGCCCGTGGAGAGTGACGAGAGCCTAGGCCGCCTCTCTGCTGCCCT GCGCTCCTGGCACTTGACTCCAAGCTGCCCTCTGGACCCAGCACCCCTCAGGGAGGCCGGCTGTCCTCAGGGGGA CTCTGCATCATCGTCGTCAGAGCCACCGCAGATTATCATCAACCCTGCCCGACAGAAGATGGTCCAGAAGCTGGC  ${\tt GGACAGGCAGGGGCCCGAAGAAGTGATGAATTTCAGAGC}{{\tt TGA}}{\tt TGTGTTCACCTGGGCAGATCCCCCAAATCCGG}$ AAGTCAAAGTTCTCATGGTCAGAAGTTCTCATGGTGCACGAGTCCTCAGCACTCTGCCGGCAGTGGGGGTGGGGG  ${\tt CCTGCACAATGGGGCCGACGAGGCCTAGGGCCCTCCTACCTGCTTACAATTTGGAAAAGTGTGGCCGGGTGCGGT}$ GGCTCACGCCTGTAATCCCAGCACTTTGGGAGGCCAAGGCAGGAGGATCGCTGGAGCCCAGTAGGTCAAGACCAG  ${\tt CCAGGGCAACATGATGAGACCCTGTCTCTGCCAAAAAATTTTTTAAACTATTAGCCTGGCGTGGTAGCGCACGCC}$ TGTGGTCCCAGCTGCTGGGGAGGCTGAAGTAGGAGGATCATTTATGCTTGGGAGGTCGAGGCTGCAGTGAGTCAT GATTGTATGACTGCACTCCAGCCTGGGTGACAGAGCCAAGACCCTGTTTCAAAAAAGAAAAACCCTGGGAAAAGTGA AGTATGGCTGTAAGTCTCATGGTTCAGTCCTAGCAAGAAGCGAGAATTCTGAGATCCTCCAGAAAGTCGAGCAGC ACCCACCTCCAACCTCGGGCCAGTGTCTTCAGGCTTTACTGGGGACCTGCGAGCTGGCCTAATGTGGTGGCCTGC AAGCCAGGCCATCCCTGGGCCCCACAGACGAGCTCCGAGCCAGGTCAGGCTTCGGAGGCCACAAGCTCAGCCTCA TGAGAAGCCCCTGGAAGGCAGAAAAGTTGGGAGCATGGCAGACAGGGAAAGGGAAACATTTTCAGGGAAAAGACAT GTATCACATGTCTTCAGAAGCAAGTCAGGTTTCATGTAACCGAGTGTCCTCTTGCGTGTCCAAAAGTAGCCCAGG GCTGTAGCACAGGCTTCACAGTGATTTTGTGTTCAGCCGTGAGTCACACTACATGCCCCCGTGAAGCTGGGCATT 

### 2207/2682 FIGURE 2004

MAGGPGPGEPAAPGAQHFLYEVPPWVMCRFYKVMDALEPADWCQFAALIVRDQTELRLCERSGQRTASVLWPWIN RNARVADLVHILTHLQLLRARDIITAWHPPAPLPSPGTTAPRPSSIPAPAEAEAWSPRKLPSSASTFLSPAFPGS QTHSGPELGLVPSPASLWPPPPSPAPSSTKPGPESSVSLLQGARPSPFCWPLCEISRGTHNFSEELKIGEGGFGC VYRAVMRNTVYAVKRLKENADLEWTAVKQSFLTEVEQLSRFRHPNIVDFAGYCAQNGFYCLVYGFLPNGSLEDRL HCQTQACPPLSWPQRLDILLGTARAIQFLHQDSPSLIHGDIKSSNVLLDERLTPKLGDFGLARFSRFAGSSPSQS SMVARTQTVRGTLAYLPEEYIKTGRLAVDTDTFSFGVVVLETLAGQRAVKTHGARTKYLKDLVEEEAEEAGVALR STQSTLQAGLAADAWAAPIAMQIYKKHLDPRPGPCPPELGLGLGQLACCCLHRRAKRRPPMTQVYERLEKLQAVV AGVPGHLEAASCIPPSPQENSYVSSTGRAHSGAAPWQPLAAPSGASAQAAEQLQRGPNQPVESDESLGGLSAALR SWHLTPSCPLDPAPLREAGCPQGDTAGESSWGSGPGSRPTAVEGLALGSSASSSSSEPPQIIINPARQKMVQKLAL YEDGALDSLQLLSSSSLPGLGLEQDRQGPEESDEFQS

# FIGURE 2005A

CGGACCGCCAGCTCAGAACAGGGGCAGCCGTGTAGCCGAACGGAAGCTGGGAGCAGCCGGGACTGGTGGCCCGCG AGGGGCCGCGGCGACGGTCACGGGGCGCGCCCACCGTGAGCCGACCCAGGCCAGGATTCTAAATAGACGGCCCA GGCTCCTCCTCCGCCGGGCCGCCTCACCTGCGGGCATTGCCGCCGCCGCCTCCGCCGGTGTAGACGGCACCTGCG GGGCTGCGGAAGCCTGCGTGAGCCGAGGCGTTGAGGCGCGCCGCCACCGCCACTGTCCCGAGAGGACGCAGGTGG AGCGGGCGCGCTTCGCGGAACCCGGCCGCCGCCGCAGTGGTCCCAGCCTACACCGGGTTCCGGGGACCCGG  $\tt CCGCCAGTGCCCGGGGGAGTAGCCGCCGCCGTCGGCTGGGCACCA\underline{ATG}{AACAGCAGCAGCGCCAACATCACCTACGC}$ CAGTCGCAAGCGGCGGAAGCCGGTGCAGAAAACAGTAAAGCCAATCCCAGCTGAAGGAATCAAGTCAAATCCTTC TAATAAGTTGGACAAACTTTCAGTTCTTAGGCTCAGCGTCAGTTACCTGAGAGCCCAAGAGCTTCTTTGATGTTGC ATTAAAATCCTCCCCTACTGAAAGAAACGGAGGCCAGGATAACTGTAGAGCAGCAAATTTCAGAGAAGGCCTGAA CTTACAAGAAGGAGAATTCTTATTACAGGCTCTGAATGGCTTTGTATTAGTTGTCACTACAGATGCTTTGGTCTT TTATGCTTCTTCTACTATACAAGATTATCTAGGGTTTCAGCAGTCTGATGTCATACATCAGAGTGTATATGAACT TATCCATACCGAAGACCGAGCTGAATTTCAGCGTCAGCTACACTGGGCATTAAATCCTTCTCAGTGTACAGAGTC TGGACAAGGAATTGAAGAAGCCACTGGTCTCCCCCAGACAGTAGTCTGTTATAACCCAGACCAGATTCCTCCAGA  ${\tt AAACTCTCCTTTAATGGAGAGGTGCTTCATATGTCGTCTAAGGTGTCTGCTGGATAATTCATCTGGTTTTCTGGC}$ CTTTAGAACCAAACACAAACTAGACTTCACACCTATTGGTTGTGATGCCAAAGGAAGAATTGTTTTAGGATATAC TGAAGCAGAGCTGTGCACGAGAGGCTCAGGTTATCAGTTTATTCATGCAGCTGATATGCTTTATTGTGCCGAGTC CCATATCCGAATGATTAAGACTGGAGAAAGTGGCATGATAGTTTTCCGGCTTCTTACAAAAAAACAACCGATGGAC TTGGGTCCAGTCTAATGCACGCCTGCTTTATAAAAATGGAAGACCAGATTATATCATTGTAACTCAGAGACCACT AACAGATGAGGAAGGAACAGAGCATTTACGAAAACGAAATACGAAGTTGCCTTTTATGTTTACCACTGGAGAAGC TGTGTTGTATGAGGCAACCAACCCTTTTCCTGCCATAATGGATCCCTTACCACTAAGGACTAAAAATGGCACTAG TGGAAAAGACTCTGCTACCACATCCACTCTAAGCAAGGACTCTCTCAATCCTAGTTCCCTCCTGGCTGCCATGAT GCAACAAGATGAGTCTATTTATCTCTATCCTGCTTCAAGTACTTCAAGTACTGCACCTTTTGAAAACAACTTTTT CAACGAATCTATGAATGAATGCAGAAATTGGCAAGATAATACTGCACCGATGGGAAATGATACTATCCTGAAACA TGAGCAAATTGACCAGCCTCAGGATGTGAACTCATTTGCTGGAGGTCACCCAGGGCTCTTTCAAGATAGTAAAAA CAGTGACTTGTACAGCATAATGAAAAACCTAGGCATTGATTTTGAAGACATCAGACACATGCAGAATGAAAAATT TTTCAGAAATGATTTTTCTGGTGAGGTTGACTTCAGAGACATTGACTTAACGGATGAAATCCTGACGTATGTCCA AGATTCTTTAAGTAAGTCTCCCTTCATACCTTCAGATTATCAACAGCAACAGTCCTTGGCTCTGAACTCAAGCTG TATGGTACAGGAACACCTACATCTAGAACAGCAACAGCAACATCACCAAAAGCAAGTAGTAGTGGAGCCACAGCA ACAGCTGTGTCAGAAGATGAAGCACATGCAAGTTAATGGCATGTTTGAAAATTGGAACTCTAACCAATTCGTGCC TTTCAATTGTCCACAGCAAGACCCACAACAATATAATGTCTTTACAGACTTACATGGGATCAGTCAAGAGTTCCC CTACAAATCTGAAATGGATTCTATGCCTTATACACAGAACTTTATTTCCTGTAATCAGCCTGTATTACCACAACA TTCCAAATGTACAGAGCTGGACTACCCTATGGGGAGTTTTGAACCATCCCCATACCCCACTACTTCTAGTTTAGA AGATTTTGTCACTTGTTTACAACTTCCTGAAAACCAAAAGCATGGATTAAATCCACAGTCAGCCATAATAACTCC GCAGTACAATCCAGTACTGCCAGGCCAACAGGCATTTTTAAACAAGTTTCAGAATGGAGTTTTAAATGAAACATA TCCAGCTGAATTAAATAACATAAATAACACTCAGACTACCACACATCTTCAGCCACTTCATCATCCGTCAGAAGC  ${\tt CAGACCTTTTCCTGATTTGACATCCAGTGGATTCCTG} \underline{{\tt TAA}} {\tt TTCCAAGCCCAATTTTGACCCTGGTTTTTGGATTA}$ AATTAGTTTGTGAAGGATTATGGAAAAATAAAACTGTCACTGTTGGACGTCAGCAAGTTCACATGGAGGCATTGA TGCATGCTATTCACAATTATTCCAAACCAAATTTTAATTTTTGCTTTTAGAAAAGGGAGTTTAAAAATGGTATCA AAATTACATATACTACAGTCAAGATAGAAAGGGTGCTGCCACGGAGTGGTGAGGTACCGTCTACATTTCACATTA TTCTGGGCACCACAAAATATACAAAACTTTATCAGGGAAACTAAGATTCTTTTAAATTAGAAAAATATTCTCTATT TGAATTATTTCTGTCACAGTAAAAATAAAATACTTTGAGTTTTGAGCTACTGGATTCTTATTAGTTCCCCAAATA

### 2209/2682 FIGURE 2005B

TTGGTGCTTTTTATAAAAAGATAATCTCAGTGCTTTCCTCCTTCACTGTTTCATCTAAGTGCCTCACATTTTTTT ACAAATATTATTTGTGTTTCCTAAATCCAACCAATTTTCATTAATTCAGGCATATTTTAACTCCACTGCTTACCT ATAAATGTTGCTATGTGCCTTATGTTGAAAAAATTTAAAAGTAAAATGTCTTTCCAAATTATTTCTTAATTATTA TTATTGATATCTCCATGATGATAGTTGAATGTTGCAATGTGAAAAATCTGCTGTTAACTGCAACCTTGTTTATTA AATTGCAAGAAGCTTTATTTCTAGCTTTTTAATTAAGCAAAGCACCCATTTCAATGTGTATAAATTGTCTTTAAA AACTGTTTTAGACCTATAATCCTTGATAATATTGTGTTGACTTTATAAATTTCGCTTCTTAGAACAGTGGAAA CTATGTGTTTTTCTCATATTTGAGGAGTGTTAAGATTGCAGATAGCAAGGTTTGGTGCAAAGTATTGTAATGAGT GAATTGAATGGTGCATTGTATAGATATAATGAACAAAATTATTTGTAAGATATTTGCAGTTTTTCATTTTAAAAA GTCCATACCTTATATATGCACTTAATTTGTTGGGGCTTTACATACTTTATCAATGTGTCTTTCTAAGAAATCAAG TAATGAATCCAACTGCTTAAAGTTGGTATTAATAAAAAGACAACCACATAGTTCGTTTACCTTCAAACTTTAGGT TTTTTTAATGATATACTGATCTTCATTACCAATAGGCAAATTAATCACCCTACCAACTTTACTGTCCTAACATGG  $\tt CGCCCAAACTGGAGTGCAGTGGCACAATCTTGGCTCACTGCAACCTCTACCTCCTGGGTTCAAGTGATTCTCTTG$ GCAGGAGAATAGCCTGAACCTGGGAATCGGAGGTTGCAGGGCCAAGATCGCCCCACTGCACTCCAGCCTGGCAAT AAAATGGCTTCGGACAAAATATCTCTGAGTTCTGTGTATTTTCAGTCAAAACTTTAAACCTGTAGAATCAATTTA AGTGTTGAAAAAATTTGTCTGAAACATTTCATAATTTGTTTCCAGCATGAGGTATCTAAGGATTTAGACCAGAG GTCTAGATTAATACTCTATTTTACATTTAAACCTTTTATTATAAGTCTTACATAAACCATTTTTGTTACTCTCT TCCACATGTTACTGGATAAATTGTTTAGTGGAAAATAGGCTTTTTAATCATGAATATGATGACAATCAGTTATAC AGTTATAAAATTAAAAGTTTGAAAAGCAATATTGTATATTTTTATCTATATAAAATAACTAAAATGTATCTAAGA ATAATAAAATCACGTTAAACC

# FIGURE 2006

MNSSSANITYASRKRRKPVQKTVKPIPAEGIKSNPSKRHRDRLNTELDRLASLLPFPQDVINKLDKLSVLRLSVS
YLRAKSFFDVALKSSPTERNGGQDNCRAANFREGLNLQEGEFLLQALNGFVLVVTTDALVFYASSTIQDYLGFQQ
SDVIHQSVYELIHTEDRAEFQRQLHWALNPSQCTESGQGIEEATGLPQTVVCYNPDQIPPENSPLMERCFICRLR
CLLDNSSGFLAMNFQGKLKYLHGQKKKGKDGSILPPQLALFAIATPLQPPSILEIRTKNFIFRTKHKLDFTPIGC
DAKGRIVLGYTEAELCTRGSGYQFIHAADMLYCAESHIRMIKTGESGMIVFRLLTKNNRWTWVQSNARLLYKNGR
PDYIIVTQRPLTDEEGTEHLRKRNTKLPFMFTTGEAVLYEATNPFPAIMDPLPLRTKNGTSGKDSATTSTLSKDS
LNPSSLLAAMMQQDESIYLYPASSTSSTAPFENNFFNESMNECRNWQDNTAPMGNDTILKHEQIDQPQDVNSFAG
GHPGLFQDSKNSDLYSIMKNLGIDFEDIRHMQNEKFFRNDFSGEVDFRDIDLTDEILTYVQDSLSKSPFIPSDYQ
QQQSLALNSSCMVQEHLHLEQQQQHHQKQVVVEPQQQLCQKMKHMQVNGMFENWNSNQFVPFNCPQQDPQQYNVF
TDLHGISQEFPYKSEMDSMPYTQNFISCNQPVLPQHSKCTELDYPMGSFEPSPYPTTSSLEDFVTCLQLPENQKH
GLNPQSAIITPQTCYAGAVSMYQCQPEPQHTHVGQMQYNPVLPGQQAFLNKFQNGVLNETYPAELNNINNTQTTT

# FIGURE 2007

GGTCTGTGAGTGTTTATGTGTGCTTTTATTCACTTCACACTTATTGAAAAGTGTGTATGTGAGAGGGTGGGGTGT GTGTGTCAAAGAGAGTGAGGAAGAAGAGAGAGAGAGATCAATTGATTCTGCAGCCTCAGCTCCAGCATCCCTCA GGTGGCGCCTCTATTCTTGCTCCTGTCTCTCAGTCCTCGGCCTCTCCAGCCAACGATGACCAGTCCAGGCCCAG TTTAGTCATTGACAAGTTTGGATCAGACATCATAAAACTGCTTAGCGCAGATATGAATGCTGATGTGGTATGTCA CACTCTGGAGTTTTGTAAACAGAACACTGGCCAACCATTGTGTCATCTCTACCCTCTTCCCAAGGAGACATGGAA ATTTACACTACAGAAGGCAAGACAAATTGTCAAGAAGTCCCCGATTCTGAAATATTCTAGAAGTGGTTCTGACAT TTGTTCACTCCCGGTTTTGGCCAAGATCTGCCAGAAAATTAAATTAGCTATGGAACAGTCTGTGCCATTCAAAGA TGTGGATTCAGACAAATACAGCGTTTTCCCAACACTGCGGGGGCTATCACTGGCGGGGGAGAGACTGTAATGACAG CGACGAGTCAGTGTACCCAGGTAGAAGGCCGAACAACTGGGATGTCCATCAGGATTCAAACTGTAATGGCATTTG GGGTGTCGATCCAAAAGATGGAGTTCCATATGAGAAGAAATTCTGTGAAGGTTCACAGCCCAGGGGAATCATTTT GCTGGGAGACTCAGCTGGGGCTCATTTTCACATCTCTCCTGAATGGATCACAGCGTCGCAGATGTCTTTGAACTC TTTCATCAATCTACCAACAGCCCTTACCAACGAGCTTGACTGGCCCCAACTCTCTGGTGCTACAGGATTTCTGGA CTCCACTGTTGGAATTAAAGAAAATCTATTTACCTTCGCTTATGGAAAAGAAACCACTGTAATCACAGGGACTA CCAGAATATTTCAAGAAATGGTGCATCTTCCCGAAACCTGAAGAAATTTATAGAAAGCTTGTCTAGAAACAAGGT GTTGGACTATCCCGCCATCGTTATATATGCCATGATTGGAAATGATGTCTGCAGTGGGAAGAGTGACCCAGTCCC AGCCATGACCACTCCTGAGAAACTCTACTCCAACGTCATGCAGACTCTGAAGCATCTAAATTCCCACCTGCCCAA TGGCAGCCATGTTATTTTGTATGGCTTACCAGATGGAACCTTTCTCTGGGATAATTTGCACAACAGATATCATCC GAAAAAAATTGCAGCCAGTGAGAAATTTACAAACTTCAATCTTTTCTACATGGATTTTGCCTTCCATGAAATCAT GGCTTTGCTGTTGTTGGCGGATCATTTCTGGAAAAAGGTGCAGCTCCAGTGGCCCCAAATCCTGGGAAAGGAGAA  $t TCCGTTCAACCCCCAGATTAAACAGGTGTTTGGAGACCAAGGCGGGCAC{ t TGA}$ t GCCTCTCAGGAGCATGCACCCCTGGGGAGCACAGGGCAGAGGCTTGGGTAAACTCATTCCACAAACCCTATGGGGGCTGCCACGTCACAGGCCCA AAGGACTCTTCTTCAGCAGCATCTTTGCAAAATGTCTTTCTCTCAATGAAGAGCATATCTGGACGACTGTGCAAT GCTGTGTGCTCCCGGGGATCAGTAACCCTTCCGCTGTTCCTGAAATAACCTTTCATAAAGTGCTTTGGGTGCCAT TCCA

# FIGURE 2008

MQSPWKILTVAPLFLLLSLQSSASPANDDQSRPSLSNGHTCVGCVLVVSVIEQLAQVHNSTVQASMERLCSYLPE KLFLKTTCYLVIDKFGSDIIKLLSADMNADVVCHTLEFCKQNTGQPLCHLYPLPKETWKFTLQKARQIVKKSPIL KYSRSGSDICSLPVLAKICQKIKLAMEQSVPFKDVDSDKYSVFPTLRGYHWRGRDCNDSDESVYPGRRPNNWDVH QDSNCNGIWGVDPKDGVPYEKKFCEGSQPRGIILLGDSAGAHFHISPEWITASQMSLNSFINLPTALTNELDWPQ LSGATGFLDSTVGIKEKSIYLRLWKRNHCNHRDYQNISRNGASSRNLKKFIESLSRNKVLDYPAIVIYAMIGNDV CSGKSDPVPAMTTPEKLYSNVMQTLKHLNSHLPNGSHVILYGLPDGTFLWDNLHNRYHPLGQLNKDMTYAQLYSF LNCLQVSPCHGWMSSNKTLRTLTSERAEQLSNTLKKIAASEKFTNFNLFYMDFAFHEIIQEWQKRGGQPWQLIEP VDGFHPNEVALLLLADHFWKKVQLQWPQILGKENPFNPQIKQVFGDQGGH

### 2213/2682 FIGURE 2009

TCCAAAGAGATTACGAATGCCTTGGAAACCTGGGGTGCCTTGGGTCAGGACATCAACTTGGACATTCCTAGTTTT CAAATGAGTGATGATATTGACGATATAAAATGGGAAAAAACTTCAGACAAGAAAAAGATTGCACAATTCAGAAAA GAGAAAGAGACTTTCAAGGAAAAAGATACATATAAGCTATTTAAAAATGGAACTCTGAAAATTAAGCATCTGAAG ACCGATGATCAGGATATCTACAAGGTATCAATATATGATACAAAAGGAAAAAATGTGTTGGAAAAAATATTTGAT TTGAAGATTCAAGAGGGGTCTCAAAACCAAAGATCTCCTGGACTTGTATCAACACAACCCTGACCTGTGAGGTA ATGAATGGAACTGACCCCGAATTAAACCTGTATCAAGATGGGAAACATCTAAAACTTTCTCAGAGGGTCATCACA CACAAGTGGACCACCAGCCTGAGTGCAAAATTCAAGTGCACAGCAGGGAACAAAGTCAGCAAGGAATCCAGTGTC  $\tt CTGGAGACAAGAGCCCACAGAGTAGCTACTGAAGAAAGGGGCCGGAAGCCCCAACAAATTCCAGCTTCAACCCCT$ CAGAATCCAGCAACTTCCCAACATCCTCCTCCACCACCTGGTCATCGTTCCCAGGCACCTAGTCATCGTCCCCCG CCTCCTGGACACCGTGTTCAGCACCAGCCTCAGAAGAGGCCTCCTGCTCCGTCGGGCACACAAGTTCACCAGCAG AAAGGCCCGCCCCCCAGACCTCGAGTTCAGCCAAAACCTCCCCATGGGGCAGCAGAAAACTCATTGTCCCCT  ${\tt ATCCGTACTTCCATGAGGTGTTTTCTGTGTGCAGAACATTGTCACCTCCTGAGGCTGTGGGCCACAGCCACCTCT}$ GCATCTTCGAACTCAGCCATGTGGTCAACATCTGGAGTTTTTGGTCTCCTCAGAGAGCTCCATCACACCAGTAAG GAGAAGCAATATAAGTGTGATTGCAAGAATGGTAGAGGACCGAGCACAGAAATCTTAGAGATTTCTTGTCCCCTC TCAGGTCATGTGTAGATGCGATAAATCAAGTGATTGGTGTGCCTGGGTCTCACTACAAGCAGCCTATCTGCTTAA GAGACTCTGGAGTTTCTTATGTGCCCTGGTGGACACTTGCCCACCATCCTGTGAGTAAAAGTGAAATAAAAGCTT TGAC

# FIGURE 2010

MSFPCKFVASFLLIFNVSSKGAVSKEITNALETWGALGQDINLDIPSFQMSDDIDDIKWEKTSDKKKIAQFRKEK ETFKEKDTYKLFKNGTLKIKHLKTDDQDIYKVSIYDTKGKNVLEKIFDLKIQERVSKPKISWTCINTTLTCEVMN GTDPELNLYQDGKHLKLSQRVITHKWTTSLSAKFKCTAGNKVSKESSVEPVSCPEKGLDIYLIIGICGGGSLLMV FVALLVFYITKRKKQRSRRNDEELETRAHRVATEERGRKPQQIPASTPQNPATSQHPPPPPGHRSQAPSHRPPPP GHRVQHQPQKRPPAPSGTQVHQQKGPPLPRPRVQPKPPHGAAENSLSPSSN

### 2215/2682 FIGURE 2011

CCATCCCATAGTGAGGGAAGACACGCGGAAACAGGCTTGCACCCAGACACGACACC<u>ATG</u>CATCTCCTCGGCCCCT GGCTCCTGCTCCTGGTTCTAGAATACTTGGCTTTCTCTGACTCAAGTAAATGGGTTTTTGAGCACCCTGAAACCC TCTACGCCTGGGAGGGGGCCTGCGTCTGGATCCCCTGCACCTACAGAGCCCTAGATGGTGACCTGGAAAGCTTCA TCCTGTTCCACAATCCTGAGTATAACAAGAACACCTCGAAGTTTGATGGGACAAGACTCTATGAAAGCACAAAGG; ATGGGAAGGTTCCTTCTGAGCAGAAAAGGGTGCAATTCCTGGGAGACAAGAATAAGAACTGCACACTGAGTATCC TCACTCTGACCTGCTTGCTGAATTTCTCCTGCTATGGGTATCCGATCCAATTGCAGTGGCTCCTAGAGGGGGTTC CCCCACAGTGGAGTCACCATGGGAAGATTGTGACCTGCCAGCTTCAGGATGCAGATGGGAAGTTCCTCCCAATG ACACGGTGCAGCTGAACGTGAAGCACCCCGAAGTTGGAGATCAAGGTCACTCCCAGTGATGCCATAGTGAGGG AGGGGGACTCTGTGACCATGACCTGCGAGGTCAGCAGCAGCAACCCGGAGTACACGACGGTATCCTGGCTCAAGG ATGGGACCTCGCTGAAGAAGCAGAATACATTCACGCTAAACCTGCGCGAAGTGACCAAGGACCAGAGTGGGAAGT ACTGCTGTCAGGTCTCCAATGACGTGGGCCCGGGAAGGTCGGAAGAAGTGTTCCTGCAAGTGCAGTATGCCCCGG AACCTTCCACGGTTCAGATCCTCCACTCACCGGCTGTGGAGGGAAGTCAAGTCGAGTTTCTTTGCATGTCACTGG ACATCCCAAAGATCCTCCCCTGGCACGCTGGGACTTATTCCTGTGTGGCAGAAAACATTCTTGGTACTGGACAGA GGGGCCCGGGAGCTGAGCTGGATGTCCAGTATCCTCCCAAGAAGGTGACCACAGTGATTCAAAAACCCCATGCCGA TTCGAGAAGGAGACACAGTGACCCTTTCCTGTAACTACAATTCCAGTAACCCCAGTGTTACCCGGTATGAATGGA AACCCCATGGCGCCTGGGAGGAGCCATCGCTTGGGGTGCTGAAGATCCAAAACGTTGGCTGGGACAACACAACCA TCGCCTGCGCACGTTGTAATAGTTGGTGCTCGTGGGCCTCCCCTGTCGCCCTGAATGTCCAGTATGCCCCCCGAG ACGTGAGGGTCCGGAAAATCAAGCCCCTTTCCGAGATTCACTCTGGAAACTCGGTCAGCCTCCAATGTGACTTCT TGGAGGGGAAGAGTGCAACCCTGACCTGTGAGAGTGACGCCAACCCTCCCGTCTCCCACTACACCTGGTTTGACT GGAATAACCAAAGCCTCCCCCACCACAGCCAGAAGCTGAGATTGGAGCCGGTGAAGGTCCAGCACTCGGGTGCCT ACTGGTGCCAGGGGACCAACAGTGTGGGCAAGGGCCGTTCGCCTCTCAGCACCCTTACTGTCTACTATAGCCCGG AGACCATCGGCAGGCGAGTGGCTGTGGGACTCGGGTCCTGCCTCGCCATCCTCATCCTGGCAATCTGTGGGCTCA AGCTCCAGCGACGTTGGAAGAGGACACAGAGCCAGCAGGGGCTTCAGGAGAATTCCAGCGGCCAGAGCTTCTTTG TGAGGAATAAAAAGGTTAGAAGGCCCCCCTCTCTGAAGGCCCCCACTCCCTGGGATGCTACAATCCAATGATGG AAGATGGCATTAGCTACACCACCCTGCGCTTTCCCGAGATGAACATACCACGAACTGGAGATGCAGAGTCCTCAG AGATGCAGAGACCTCCCCGGACCTGCGATGACACGGTCACTTATTCAGCATTGCACAAGCGCCAAGTGGGCGACT ATGAGAACGTCATTCCAGATTTTCCAGAAGATGAGGGGATTCATTACTCAGAGCTGATCCAGTTTGGGGTCGGGG  $\tt CTGGGGGCAGGGGGCCAGGGAAGTCCCCGAGTTTCCCCAGACACGCCACATGGCTTCCTCCTGCGTGCATGT$ GTCTTTTTGGTGAGGGTAACCCCAAACCTCCAAAACTCCTGCCCCTGTTCTCTTCCACTCTCCTTGCTACCCAGA AATCATCTAAATACCTGCCCTGACATGCACAÇCTCCCCTGCCCCACCAGCCCACTGGCCATCTCCACCCGGAGCT GCTGTGTCCTCTGGATCTGCTCGTCATTTTCCTTCCCTTCTCCATCTCTCTGGCCCTCTACCCCTGATCTGACAT CCCCACTCACGAATATTATGCCCAGTTTCTGCCTCTGAGGGAAAGCCCCAGAAAAGGACAGAAACGAAGTAGAAAG GACTCTGGGGACTCCGGGTTTGAGATGGACACACTGGTGTGGATTAACCTGCCAGGGAGACAGAGCTCACAATAA AAATGGCTCAGATGCCACTTCAAAGAAAAAAAAAA

### 2216/2682 FIGURE 2012

MHLLGPWLLLLVLEYLAFSDSSKWVFEHPETLYAWEGACVWIPCTYRALDGDLESFILFHNPEYNKNTSKFDGTR
LYESTKDGKVPSEQKRVQFLGDKNKNCTLSIHPVHLNDSGQLGLRMESKTEKWMERIHLNVSERPFPPHIQLPPE
IQESQEVTLTCLLNFSCYGYPIQLQWLLEGVPMRQAAVTSTSLTIKSVFTRSELKFSPQWSHHGKIVTCQLQDAD
GKFLSNDTVQLNVKHTPKLEIKVTPSDAIVREGDSVTMTCEVSSSNPEYTTVSWLKDGTSLKKQNTFTLNLREVT
KDQSGKYCCQVSNDVGPGRSEEVFLQVQYAPEPSTVQILHSPAVEGSQVEFLCMSLANPLPTNYTWYHNGKEMQG
RTEEKVHIPKILPWHAGTYSCVAENILGTGQRGPGAELDVQYPPKKVTTVIQNPMPIREGDTVTLSCNYNSSNPS
VTRYEWKPHGAWEEPSLGVLKIQNVGWDNTTIACARCNSWCSWASPVALNVQYAPRDVRVRKIKPLSEIHSGNSV
SLQCDFSSSHPKEVQFFWEKNGRLLGKESQLNFDSISPEDAGSYSCWVNNSIGQTASKAWTLEVLYAPRRLRVSM
SPGDQVMEGKSATLTCESDANPPVSHYTWFDWNNQSLPHHSQKLRLEPVKVQHSGAYWCQGTNSVGKGRSPLSTL
TVYYSPETIGRRVAVGLGSCLAILILAICGLKLQRRWKRTQSQQGLQENSSGQSFFVRNKKVRRAPLSEGPHSLG
CYNPMMEDGISYTTLRFPEMNIPRTGDAESSEMQRPPRTCDDTVTYSALHKRQVGDYENVIPDFPEDEGIHYSEL
IQFGVGERPQAQENVDYVILKH

### 2217/2682 FIGURE 2013

### 2218/2682 FIGURE 2014

MSAQESCLSLIKYFLFVFNLFFFVLGSLIFCFGIWILIDKTSFVSFVGLAFVPLQIWSKVLAISGIFTMGIALLG CVGALKELRCLLGLYFGMLLLLFATQITLGILISTQRAQLERSLRDVVEKTIQKYGTNPEETAAEESWDYVQFQL RCCGWHYPQDWFQVLILRGNGSEAHRVPCSCYNLSATNDSTILDKVILPQLSRLGHLARSRHSADICAVPAESHI YREGCAQGLQKWLHNNLISIVGICLGVGLLELGFMTLSIFLCRNLDHVYNRLARYR

### 2219/2682 FIGURE 2015

## 2220/2682 FIGURE 2016

 $\label{thm:mpggpgvlqalpatifllfulsavylgpgcqalwmhkvpaslmvslgedahfqcphnssnnanvtwwrvlhgnyt\\ wppeflgpgedpneppprpfldmgegtknriitaegiillfcavvpgtlllfrkrwqneklgldagdeyedenly\\ eglnlddcsmyedisrglqgtyqdvgslnigdvqlekp$ 

### 2221/2682 FIGURE 2017A

GCCCTCCCAGAGCTGCCGGACGCTCGCGGGTCTCGGAACGCATCCCGCCGCGGGGGCTTCGGCCGTGGC<u>ATC</u>GGC GCCGCGGGCCTGCTCGGGGTTTTCTTGGCTCTCGTCGCACCGGGGGTCCTCGGGATTTCTTGTGGCTCTCCTCCG CCTATCCTAAATGGCCGGATTAGTTATTATTCTACCCCCATTGCTGTTGGTACCGTGATAAGGTACAGTTGTTCA CCTGCTCCTAAATGTGAATATTTCAATAAATATTCTTCTTGCCCTGAGCCCATAGTACCAGGAGGATACAAAATT AGAGGCTCTACACCCTACAGACATGGTGATTCTGTGACATTTGCCTGTAAAACCAACTTCTCCATGAACGGAAAC AAGTCTGTTTGGTGTCAAGCAAATAATATGTGGGGGCCGACACGACTACCAACCTGTGTAAGTGTTTTCCCTCTC GAGTGTCCAGCACTTCCTATGATCCACAATGGACATCACACAAGTGAGAATGTTGGCTCCATTGCTCCAGGATTG TCTGTGACTTACAGCTGTGAATCTGGTTACTTGCTTGTTGGAGAAAAGATCATTAACTGTTTGTCTTCGGGAAAA TGGAGTGCTGTCCCCCCCACATGTGAAGAGGCACGCTGTAAATCTCTAGGACGATTTCCCAATGGGAAGGTAAAG GAGCCTCCAATTCTCCGGGTTGGTGTAACTGCAAACTTTTTCTGTGATGAAGGGTATCGACTGCAAGGCCCACCT TCTAGTCGGTGTAATTGCTGGACAGGGAGTTGCTTGGACCAAAATGCCAGTATGTGAAGAAATTTTTTGCCCA TCACCTCCCCTATTCTCAATGGAAGACATATAGGCAACTCACTAGCAAATGTCTCATATGGAAGCATAGTCACT TACACTTGTGACCCGGACCCAGAGGAAGGAGTGAACTTCATCCTTATTGGAGAGAGCACTCTCCGTTGTACAGTT GATAGTCAGAAGACTGGGACCTGGAGTGGCCCTGCCCCACGCTGTGAACTTTCTACTTCTGCGGTTCAGTGTCCA CATCCCCAGATCCTAAGAGGCCGAATGGTATCTGGGCAGAAAGATCGATATACCTATAACGACACTGTGATATTT GCTTGCATGTTTGGCTTCACCTTGAAGGGCAGCAAGCAAATCCGATGCAATGCCCAAGGCACATGGGAGCCATCT GCACCAGTCTGTGAAAAGGAATGCCAGGCCCCTCCTAACATCCTCAATGGGCAAAAGGAAGATAGACACATGGTC CGCTTTGACCCTGGAACATCTATAAAATATAGCTGTAACCCTGGCTATGTGCTGGTGGGAGAAGAATCCATACAG TGTACCTCTGAGGGGGTGTGGACACCCCCTGTACCCCAATGCAAAGTGGCAGCGTGTGAAGCTACAGGAAGGCAA CTCTTGACAAAACCCCAGCACCAATTTGTTAGACCAGATGTCAACTCTTCTTGTGGTGAAGGGTACAAGTTAAGT GGGAGTGTTTATCAGGAGTGTCAAGGCACAATTCCTTGGTTTATGGAGATTCGTCTTTGTAAAGAAATCACCTGC CCACCACCCCTGTTATCTACAATGGGGCACACACCGGGAGTTCCTTAGAAGATTTTCCATATGGAACCACGGTC ACTTACACATGTAACCCTGGGCCAGAAAGAGGGGGGGAATTCAGCCTCATTGGAGAGAGCACCATCCGTTGTACA AGCAATGATCAAGAAAGAGGCACCTGGAGTGGCCCTGCTCCCCTATGTAAACTTTCCCTCCTTGCTGCCAGTGC TCACATGTCCATATTGCAAATGGATACAAGATATCTGGCAAGGAAGCCCCATATTTCTACAATGACACTGTGACA TTCAAGTGTTATAGTGGATTTACTTTGAAGGGCAGTAGTCAGATTCGTTGCAAAGCTGATAACACCTGGGATCCT GAAATACCAGTTTGTGAAAAAGAACATGCCAGCATGTGAGACAGAGTCTTCAAGAACTTCCAGCTGGTTCACGT GTGGAGCTAGTTAATACGTCCTGCCAAGATGGGTACCAGTTGACTGGACATGCTTATCAGATGTCAAAGATGCT GAAAATGGAATTTGGTTCAAAAAGATTCCACTTTGTAAAGTTATTCACTGTCACCCTCCACCAGTGATTGTCAAT GGGAAGCACAGGGATGATGGCAGAAAACTTTCTATATGGAAATGAAGTCTCTTATGAATGTGACCAAGGATTC TATCTCCTGGGAGAAAAAATTGCAGTGCAGAAGTGATTCTAAAGGACATGGATCTTGGAGCGGGCCTTCCCCA CAGTGCTTACGATCTCCTCCTGTGACTCGCTGCCCTAATCCAGAAGTCAAACATGGGTACAAGCTCAATAAAACA CATTCTGCATATTCCCACAATGACATAGTGTATGTTGACTGCAATCCTGGCTTCATCATGAATGGTAGTCGCGTG ATTAGGTGTCATACTGATAACACATGGGTGCCCAGGTGTGCCAACTTGTATGAAAAAAGCCTTCATAGGGTGTCCA CCTCCGCCTAAGACCCCTAACGGGAACCATACTGGTGGAAACATAGCTCGATTTTCTCCTGGAATGTCAATCCTG TACAGCTGTGACCAAGGCTACCTGCTGGTGGGAGAGGCACTCCTTCTTTGCACACATGAGGGAACCTGGAGCCAA AGGAAAATGTATCAGTATGGAGCTGTTGTAACTCTGGAGTGTGAAGATGGGTATATGCTGGAAGGCAGTCCCCAG AGCCAGTGCCAATCGGATCACCAATGGAACCCTCCCCTGGCGGTTTGCAGATCCCGTTCACTTGCTCCTT TGTGGTATTGCTGCAGGTTTGATACTTCTTACCTTCTTGATTGTCATTACCTTATACGTGATATCAAAACACAGA GAACGCAATTATTATACAGATACAAGCCAGAAAGAAGCTTTTCATTTAGAAGCACGAGAAGTATATTCTGTTGAT  ${\tt CCATACAACCCAGCCAGC} \underline{{\tt TGA}} {\tt TCAGAAGACAAACTGGTGTGCCTCATTGCTTGGAATTCAGCGGAATATTGAT}$ TAGAAAGAAACTGCTCTAATATCAGCAAGTCTCTTTATATGGCCTCAAGATCAATGAAATGATGTCATAAGCGAT CACTTCCTATATGCACTTATTCTCAAGAAGAACATCTTTATGGTAAAGATGGGAGCCCAGTTTCACTGCCATATA CTCTTCAAGGACTTTCTGAAGCCTCACTTATGAGATGCCTGAAGCCAGGCCATGGCTATAAACAATTACATGGCT CTAAAAAGTTTTGCCCTTTTTAAGGAAGGCACTAAAAAGAGCTGTCCTGGTATCTAGACCCATCTTCTTTTTGAA ATCAGCATACTCAATGTTACTATCTGCTTTTGGTTATAATGTGTTTTTAATTATCTAAAGTATGAAGCATTTTCT

### 2222/2682 FIGURE 2017B

### 2223/2682 FIGURE 2018

MGAAGLLGVFLALVAPGVLGISCGSPPPILNGRISYYSTPIAVGTVIRYSCSGTFRLIGEKSLLCITKDKVDGTW
DKPAPKCEYFNKYSSCPEPIVPGGYKIRGSTPYRHGDSVTFACKTNFSMNGNKSVWCQANNMWGPTRLPTCVSVF
PLECPALPMIHNGHHTSENVGSIAPGLSVTYSCESGYLLVGEKIINCLSSGKWSAVPPTCEEARCKSLGRFPNGK
VKEPPILRVGVTANFFCDEGYRLQGPPSSRCVIAGQGVAWTKMPVCEEIFCPSPPPILNGRHIGNSLANVSYGSI
VTYTCDPDPEEGVNFILIGESTLRCTVDSQKTGTWSGPAPRCELSTSAVQCPHPQILRGRMVSGQKDRYTYNDTV
IFACMFGFTLKGSKQIRCNAQGTWEPSAPVCEKECQAPPNILNGQKEDRHMVRFDPGTSIKYSCNPGYVLVGEES
IQCTSEGVWTPPVPQCKVAACEATGRQLLTKPQHQFVRPDVNSSCGEGYKLSGSVYQECQGTIPWFMEIRLCKEI
TCPPPPPVIYNGAHTGSSLEDFPYGTTVTYTCNPGPERGVEFSLIGESTIRCTSNDQERGTWSGPAPLCKLSLLAV
QCSHVHIANGYKISGKEAPYFYNDTVTFKCYSGFTLKGSSQIRCKADNTWDPEIPVCEKETCQHVRQSLQELPAG
SRVELVNTSCQDGYQLTGHAYQMCQDAENGIWFKKIPLCKVIHCHPPPVIVNGKHTGMMAENFLYGNEVSYECDQ
GFYLLGEKKLQCRSDSKGHGSWSGPSPQCLRSPPVTRCPNPEVKHGYKLNKTHSAYSHNDIVYVDCNPGFIMNGS
RVIRCHTDNTWVPGVPTCMKKAFIGCPPPPKTPNGNHTGGNIARFSPGMSILYSCDQGYLLVGEALLLCTHEGTW
SQPAPHCKEVNCSSPADMDGIQKGLEPRKMYQYGAVVTLECEDGYMLEGSPQSQCQSDHQWNPPLAVCRSRSLAP
VLCGIAAGLILLTFLIVITLYVISKHRERNYYTDTSQKEAFHLEAREVYSVDPYNPAS

### 2224/2682 FIGURE 2019A

CCCAGCCCAAGTTTTTAGGGTGGGGATCCAGACTGGTTATACGTACCTTCAGTCCTTCTCCCAGAGGAAGGCAGA AACACCTCAAAGCCTGCATGTAAGAACATCTACTGAGAAATTATTTTAATCAGACACCAGCTGAGTGGGAGAAAG GAAAAGAACAGAGAAGAACAAACAAAACTCCCTTGGTCTTGGATGTAAGAGAATCCAGCAGAG<mark>ATG</mark>GACTGGAGT TTCTTCAGAGTAGTTGCAGTGCTGTTCATTTTTCTGGTGGTGGTAGAAGTTAACAGTGAATTCCGAATCCAGGTA AGAGATTATAACACTAAAAATGGCACCATCAAATGGCATTCAATCCGAAGGCAGAAACGTGAATGGATCAAGTTC GCAGCAGCCTGTCGTGAAGGTGAAGACAACTCAAAGAGGAACCCAATCGCCAAAATTCACTCAGATTGTGCTGCA AACCAGCAAGTTACATACCGCATCTCTGGAGTAGGAATTGATCAGCCACCATATGGGATCTTTGTCATTAATCAG AAAACTGGTGAAATTAATATAACATCCATAGTTGATCGAGAGGTCACTCCTTTCTTCATTATCTACTGCCGAGCT CTGAACTCAATGGGCCAAGATTTAGAGAGGCCTCTAGAGCTCAGAGTCAGGGTTTTGGATATAAATGACAACCCT CCAGTGTTTTCAATGGCTACATTTGCAGGACAAATAGAAGAAAATTCTAATGCAAATACACTGGTGATGATACTC AATGCTACTGACGCAGATGAACCGAACAATTTGAACTCAAAAATAGCCTTCAAGATTATAAGACAAGAACCTTCA GATTCACCAATGTTTATTATCAACAGAAATACTGGAGAAATTCGAACGATGAATAATTTTCTAGACAGAGAGCAA TACGGCCAGTATGCTCTTGCTGTAAGAGGCTCTGACCGAGATGGTGGGGGCAGATGGCATGTCAGCGGAATGTGAG TGCAACATTAAAATCCTCGATGTCAATGATAATATCCCTTACATGGAACAGTCTTCATATACCATAGAAATTCAA GAAAATACTCTAAATTCAAATTTGCTCGAGATTAGAGTAATTGATTTGGATGAAGAGTTCTCAGCTAACTGGATG ATTTTAAAGGTTGTTAAGCCCTTAGATTATGAAGCTATGCAGAGTCTGCAACTCAGTATTGGTGTCAGAAATAAA GCTGAATTTCATCATTCAATTATGTCTCAATATAAACTGAAAGCATCTGCAATTTCTGTGACTGTGTTAAATGTA ATTGAAGGCCCAGTGTTTCGTCCAGGTTCAAAGACATATGTTGTAACTGGTAATATGGGATCAAATGATAAAGTG GGAGACTTTGTAGCTACTGACCTGGACACAGGTAGACCTTCAACGACTGTTAGGTATGTAATGGGAAATAATCCA GCTGACCTGCTAGCTGTTGATTCAAGAACAGGCAAACTCACTTTGAAAAATAAAGTTACCAAGGAACAGTACAAT ATGCTCGGAGGAAAATACCAAGGAACGATTCTCTCTATAGATGATAATCTTCAAAGAACTTGCACTGGTACAATT AATATTAACATTCAAAGTTTTGGTAATGACGACAGGACTAATACAGAGCCGAACACTAAAATTACTACCAATACT GGCAGACAAGAAAGTACTTCTTCCACTAACTATGATACCAGCACAACTTCTACTGACTCTAGCCAAGTATATTCT TCTGAACCCGGAAACGGAGCCAAAGATTTGTTATCAGACAATGTACATTTTGGTCCTGCTGGCATTGGACTCCTC ATCATGGGATTCTTGGTCTTAGGATTGGTCCCATTTTTGATGATCTGTTGTGATTGTGGAGGTGCTCCTCGTAGT GAACCCAGGGATATAACCACTGTCATACCACAAATACCACCTGATAACGCAAATATAATTGAATGCATTGACAAC GAACTAACAGAGGGAGTTAAAACTTCAGGAATGCCTGAGATATGTCAAGAATACTCTGGAACATTAAGAAGAAAT TCTATGAGGGAATGTAGAGAAGGAGGTCTGAATATGAATTTCATGGAAAGCTACTTCTGTCAGAAAGCATATGCT TACGCAGATGAAGATGAAGGACGCCCATCTAATGACTGTTTGCTCATATATGACATCGAAGGTGTAGGTTCCCCT GCTGGCTCTGTGGGTTGTTGTAGCTTCATTGGAGAAGACCTGGATGACAGCTTCTTGGATACCCTGGGACCTAAA TTTAAGAAGTTGGCAGACATCAGCCTAGGAAAAGAATCATATCCAGACCTTGATCCTTCTTGGCCACCACAAAGC ACTACCACAGTAATTTCTGAGAGCACCTATCCCTCGGGACCTGGTGTACTGCATCCTAAGCCTATTCTCGATCCT CTGGGCTATGGTAATGTCACTGTGACCGAGTCTTACACCACCTCTGACACTCTGAAGCCCTCTGTGCACGTTCAC ATGTTAGAGATGCCTGACTTGCGAGATGGGTCGAATGTTATAGTGACAGAAAGGGTAATAGCACCAAGCTCTAGT CTACCCACCTCTCTGACTATCCATCATCCTAGAGAGTCTTCAAATGTGGTAGTGACAGAAAGAGTAATCCAACCA ACTTCCGGCATGATAGGTAGTCTGAGTATGCACCCCGAGTTAGCCAATGCCCACAATGTCATTGTGACAGAGAGG GTTGTTTCTGGTGCTGGCGTAACTGGAATTAGTGGCACCACTGGGATCAGCGGTGGCATAGGCAGCAGTGGCCTG GTTGGCACCAGCATGGGTGCTGGGAGCGGTGCCCTGAGTGGAGCTGGCATAAGTGGTGGTGGCATTGGCCTGAGC AGCTTGGGAGGGACAGCCAGCATTGGCCACATGAGGAGTTCCTCTGACCATCACTTTAACCAAACCATTGGGTCC GCCTCCCCTAGCACAGCTCGAAGTCGAATCACAAAGTATAGTACCGTGCAATATAGCAAG<u>TAG</u>TCAGGACCCCAG CTCACTTTTCATAGTCATTGTGGTTTAGATCCAATTCCCACCACTAAAAAACTAACAATGTGATTTATAACGCA GGGGAGAGCTCTCCTTAGCATTCATAAACTTTTCTCTTATATTAGGACTAAGGAACTAAAACTTGAGGCAGAGTC

### 2225/2682 FIGURE 2019B

### 2226/2682 FIGURE 2020

MDWSFFRVVAVLFIFLVVVEVNSEFRIQVRDYNTKNGTIKWHSIRRQKREWIKFAAACREGEDNSKRNPIAKIHS
DCAANQQVTYRISGVGIDQPPYGIFVINQKTGEINITSIVDREVTPFFIIYCRALNSMGQDLERPLELRVRVLDI
NDNPPVFSMATFAGQIEENSNANTLVMILNATDADEPNNLNSKIAFKIIRQEPSDSPMFIINRNTGEIRTMNNFL
DREQYGQYALAVRGSDRDGGADGMSAECECNIKILDVNDNIPYMEQSSYTIEIQENTLNSNLLEIRVIDLDEEFS
ANWMAVIFFISGNEGNWFEIEMNERTNVGILKVVKPLDYEAMQSLQLSIGVRNKAEFHHSIMSQYKLKASAISVT
VLNVIEGPVFRPGSKTYVVTGNMGSNDKVGDFVATDLDTGRPSTTVRYVMGNNPADLLAVDSRTGKLTLKNKVTK
EQYNMLGGKYQGTILSIDDNLQRTCTGTININIQSFGNDDRTNTEPNTKITTNTGRQESTSSTNYDTSTTSTDSS
QVYSSEPGNGAKDLLSDNVHFGPAGIGLLIMGFLVLGLVPFLMICCDCGGAPRSAAGFEPVPECSDGAIHSWAVE
GPQPEPRDITTVIPQIPPDNANIIECIDNSGVYTNEYGGREMQDLGGGERMTGFELTEGVKTSGMPEICQEYSGT
LRRNSMRECREGGLNMNFMESYFCQKAYAYADEDEGRPSNDCLLIYDIEGVGSPAGSVGCCSFIGEDLDDSFLDT
LGPKFKKLADISLGKESYPDLDPSWPPQSTEPVCLPQETEPVVSGHPPISPHFGTTTVISESTYPSGPGVLHPKP
ILDPLGYGNVTVTESYTTSDTLKPSVHVHDNRPASNVVVTERVVGPISGADLHGMLEMPDLRDGSNVIVTERVIA
PSSSLPTSLTIHHPRESSNVVVTERVIQPTSGMIGSLSMHPELANAHNVIVTERVVSGAGVTGISGTTGISGGIG
SSGLVGTSMGAGSGALSGAGISGGGIGLSSLGGTASIGHMRSSSDHHFNQTIGSASPSTARSRITKYSTVQYSK

### 2227/2682 FIGURE 2021

GCCCGCCGCCGCAGTGGACCGTGTGCGCGAACCCTGAACCCTACGGTCCCGACCCGCGGGCGAGGCCGGGTA  $\tt CCCGGGAACCGGGGCCCCACCCGCGCCTGGTGACTTCTCCGGGGAAGGGAGCCAGGGACTTCCCGACCCTTCGCC$ AGAGCCCAAGCAGCTCCCGGAGCTGATCCGCATGAAGCGAGACGGAGGCCGCCTGAGCGAAGCGGACATCAGGGG CTTCGTGGCCGCTGTGGTGAATGGGAGCGCGCAGGGCGCACAGATCGGGGCCATGCTGATGGCCATCCGACTTCG GGGCATGGATCTGGAGGAGACCTCGGTGCTGACCCAGGCCCTGGCTCAGTCGGGACAGCAGCTGGAGTGGCCAGA GGCCTGGCGCCAGCAGCTTGTGGACAAGCATTCCACAGGGGGTGTGGGTGACAAGGTCAGCCTGGTCCTCGCACC TGCCCTGGCGGCATGTGGCTGCAAGGTGCCAATGATCAGCGGACGTGGTCTGGGGCACACAGGAGGCACCTTGGA TAAGCTGGAGTCTATTCCTGGATTCAATGTCATCCAGAGCCCAGAGCAGATGCAAGTGCTGCTGGACCAGGCGGG  ${\tt CACCGTGGACAGCCTGCCACTCATCACAGCCTCCATTCTCAGTAAGAAACTCGTGGAGGGGCTGTCCGCTCTGGT}$ GGTGGACGTTAAGTTCGGAGGGGCCGCCGTCTTCCCCAACCAGGAGCAGGCCCGGGAGCTGGCAAAGACGCTGGT TGGCGTGGGAGCCAGCCTAGGGCTTCGGGTCGCGCAGCGCTGACCGCCATGGACAAGCCCCTGGGTCGCTGCGT GGGCCACGCCCTGGAGGTGGAGGCGCTGCTCTGCATGGACGGCGCAGGCCCGCCAGACTTAAGGGACCTGGT CGCGGCGCTGGACGACGGCTCGGCCCTTGGCCGCTTCGAGCGGATGCTGGCCGCAGGGCGTGGATCCCGGTCT GGCCCGAGCCCTGTGCTCGGGAAGTCCCGCAGAACGCCGGCAGCTGCTGCCTCGCGCCCGGGAGCAGGAGGAGCT GCTGGCGCCCGCAGATGGCACCGTGGAGCTGGTCCGGGCGCTGCCGCTGGCGCTGCTGCACGAGCTCGGGGC CGGGCGCAGCCGCGCTGGGGAGCCGCCTCGCCTGGGGGTGGGCCAGAGCTGCTGGTCGACGTGGGTCAGAGGCT GCGCCGTGGGACCCCCTGGCTCCGCGTGCACCGGGACGCCCCGCGCTCAGCGGCCCCGCAGAGCCGCCCCTGCA GGAGGCGCTCGTACTCTCCGACCGCGCCCATTCGCCGCCCCTCGCCCTTCGCAGAGCTCGTTCTGCCGCCGCA GCAATAAAGCTCCTTTGCCGCGAAA

## 2228/2682 FIGURE 2022

MAALMTPGTGAPPAPGDFSGEGSQGLPDPSPEPKQLPELIRMKRDGGRLSEADIRGFVAAVVNGSAQGAQIGAML MAIRLRGMDLEETSVLTQALAQSGQQLEWPEAWRQQLVDKHSTGGVGDKVSLVLAPALAACGCKVPMISGRGLGH TGGTLDKLESIPGFNVIQSPEQMQVLLDQAGCCIVGQSEQLVPADGILYAARDVTATVDSLPLITASILSKKLVE GLSALVVDVKFGGAAVFPNQEQARELAKTLVGVGASLGLRVAAALTAMDKPLGRCVGHALEVEEALLCMDGAGPP DLRDLVTTLGGALLWLSGHAGTQAQGAARVAAALDDGSALGRFERMLAAQGVDPGLARALCSGSPAERRQLLPRA REQEELLAPADGTVELVRALPLALVLHELGAGRSRAGEPLRLGVGAELLVDVGQRLRRGTPWLRVHRDGPALSGP OSRALOEALVLSDRAPFAAPSPFAELVLPPQQ

### 2229/2682 FIGURE 2023

 ${\tt CCTGTTTGGGACACTGGACTCCGTGAGCTGGAAGGAACAGATTTAATATCTAGGGGCTGGGTATCCCCACATCA}$  $\tt CTCATTTGGGGGGTCAAGGGACCCGGGCAATATAGTATTCTGCTCAGTGTCTGGAGATCATCTACCCAGGCTGGG$ GCTTCTGGGACAGGCGAGGACCCACGGACCCTGGAAGAGCTGGTCCAGGGGGACTGAACTCCCGGCATCTTTACAG  ${\tt CCCATGTGGAAAGCACCTGTCTGTTGGATGATGCTGGGACTCCAAAGGATTTCACATACTGCATCTCCTTCAACA}$  ${\tt CGAATGTCCTCTCACGGCACCTCAACCAAAAAGACACCCTGATGCAGCGCTTGCGCAATGGGCTTCAGAATTGTG}$  $\tt CCACACACCCCAGCCCTTCTGGGGATCACTGACCAACAGGACACGGCCACCATCTGTGCAAGTAGCCAAAACCA$  ${\tt CATACCAGACCCTCTCCCATTTAGCCTTAACCCCCTCTTACGGGGACACTTACACCTGTGTGGTAGAGCACATTG}$ GGGCTCCTGAGCCCATCCTTCGGGACTGGACACCTGGGCTGTCCCCCATGCAGACCCTGAAGGTTTCTGTGTCTG  ${\tt CAGTGACTCTGGGCCTGGGCCTCATCATCTTCTCTCTTGGTGTGATCAGCTGGCGGAGAGCTGGCCACTCTAGTT}$  ${\tt ACACTCCTCTTCCTGGGTCCAATTATTCAGAAGGATGGCACATTTCC} \underline{{\tt TAG}} {\tt AGGCAGAATCCTACAACTTCCACTC}$ CAAGTGAGAAGGAGATTCAAACTCAATGATGCTACCATGCCTCTCCAACATCTTCAACCCCCTGACATTATCTTG GATCCTATGGTTTCTCCATCCAATTCTTTGAATTTCCCAGTCTCCCCTATGTAAAACTTAGCAACTTGGGGGACC TCATTCCTGGGACTATGCTGTAACCAAATTATTGTCCAAGGCTATATTTCTGGGATGAATATAATCTGAGGAAGG GAGTTAAAGACCCTCCTGGGGCTCTCAGTGTGCCATAGAGGACAGCAACTGGTGATTGTTTCAGAGAAATAAACT TTGGTGGA

## 2230/2682 FIGURE 2024

MITFLPLLLGLSLGCTGAGGFVAHVESTCLLDDAGTPKDFTYCISFNKDLLTCWDPEENKMAPCEFGVLNSLANV LSQHLNQKDTLMQRLRNGLQNCATHTQPFWGSLTNRTRPPSVQVAKTTPFNTREPVMLACYVWGFYPAEVTITWR KNGKLVMPHSSAHKTAQPNGDWTYQTLSHLALTPSYGDTYTCVVEHIGAPEPILRDWTPGLSPMQTLKVSVSAVT LGLGLIIFSLGVISWRRAGHSSYTPLPGSNYSEGWHIS

### 2231/2682 FIGURE 2025

# 2232/2682 FIGURE 2026

MSMSPTVIILACLGFFLDQSVWAHVGLYEKPSLTARPGPTVRAGENVTLSCSSQSSFDIYHLSREGEAHELRLPA VPSINGTFQADFPLGPATHGETYRCFGSFHGSPYEWSDPSDPLPVSVTDAAVMNQEPAGHRTVNREDSDEQDPQE VTYAQLDHCIFTQRKITGPSQRSKRPSTDTSVCIELPNAEPRALSPAHEHHSQALMGSSRETTALSQTQLASSNV PAAGI

### 2233/2682 FIGURE 2027

AGATTGCAGGCATTGTTTGTTCTTGGCTTTAGACTTTAAATTTCACCTTTTATTACACAGCTATAGCAG GCCTTTTTATGAGACTAACCTGGCCTCTCCACTAAAGGATGTGTGACTTTCTGGGGACAGAAGAGTACAGTCCCT GACATCACACTGCAGAGATGGATAACCAAGGAGTAATCTACTCAGACCTGAATCTGCCCCCAAACCCAAAGAG GCAGCAACGAAAACCTAAAGGCAATAAAAGCTCCATTTTAGCAACTGAACAGGAAATAACCTATGCGGAATTAAA CCTTCAAAAAGCTTCTCAGGATTTTCAAGGGAATGACAAAACCTATCACTGCAAAGATTTACCATCAGCTCCAGA GAAGCTCATTGTTGGGATCCTGGGAATTATCTGTCTTATCTTAATGGCCTCTGTGGTAACGATAGTTGTTATTCC CTCTACATTAATACAGAGGCACAACAATTCTTCCCTGAATACAAGAACTCAGAAAGCACGTCATTGTGGCCATTG TCCTGAGGAGTGGATTACATATTCCAACAGTTGTTACTACATTGGTAAGGAAAGAAGAACTTGGGAAGAGAGTTT GCTGGCCTGTACTTCGAAGAACTCCAGTCTGCTTTCTATAGATAATGAAGAAGAAATGAAATTTCTGTCCATCAT TTCACCATCCTCATGGATTGGTGTTTTCGTAACAGCAGTCATCATCCATGGGTGACAA<u>TGA</u>ATGGTTTGGCTTT CAAACATGAGATAAAAGACTCAGATAATGCTGAACTTAACTGTGCAGTGCTACAAGTAAATCGACTTAAATCAGC CCAGTGTGGATCTTCAATAATATATCATTGTAAGCATAAGCTTTAGAGGTAAAGCGTTTGCATTTGCAGTGCATC AGATAAATTGTATATTCTTAAAATAGAAATATATTATGATTGCATAAATCTTAAAATGAATTATGTTATTTGCT CTAATAAGAAAATTCTAAATCAATTATTGAAACAGGATACACACAATTACTAAAGTACAGACATCCTAGCATTTG TGTCGGGCTCATTTTGCTCAACATGGTATTTGTGGTTTTCAGCCTTTCTAAAAGTTGCATGTTATGTGAGTCAGC TTGAAATAGGAGATGACCTCTAACTGATAGAACGTTACTTTGTGTCGTGATGAAAACTTTCTAAATTTCAGTAGT GGTGATGGTTGTAACTCTGCGAATATACTAAACATCATTGATTTTTAATCATTTTAAGTGCATGAAATGTATGCT 

# 2234/2682 FIGURE 2028

MDNQGVIYSDLNLPPNPKRQQRKPKGNKSSILATEQEITYAELNLQKASQDFQGNDKTYHCKDLPSAPEKLIVGI LGIICLILMASVVTIVVIPSRHCGHCPEEWITYSNSCYYIGKERRTWEESLLACTSKNSSLLSIDNEEEMKFLSI ISPSSWIGVFRNSSHHPWVTMNGLAFKHEIKDSDNAELNCAVLQVNRLKSAQCGSSIIYHCKHKL

### 2235/2682 FIGURE 2029

 ${\tt GCCCGAAAGGCCGGGCCGTCGTCTTAGGAGGAGTCGCCGCCGCCGCCACCTCCGCC{\tt ATG}{\tt GAGCTGATCACCATTC}}$ TCGAGAAGACCGTGTCTCCCGATCGGCTGGAGCTGGAAGCGGCGCAGAAGTTCCTGGAGCGTGCGGCCGTGGAGA ACCTGCCCACTTTCCTTGTGGAACTGTCCAGAGTGCTGGCAAATCCAGGAAACAGTCAGGTTGCCAGAGTTGCAG CTGGTCTACAAATCAAGAACTCTTTGACATCTAAAGATCCAGATATCAAGGCACAATATCAGCAGAGGTGGCTTG CTATTGATGCTAATGCTCGACGAGAAGTCAAGAACTATGTTTTGCAGACATTGGGTACAGAAACTTACCGGCCTA GTTCTGCCTCACAGTGTGTGGCTGGTATTGCTTGTGCAGAGATCCCAGTAAACCAGTGGCCAGAACTCATTCCTC AGCTGGTGGCCAATGTCACAAACCCCAACAGCACAGAGCACATGAAGGAGTCGACATTGGAAGCCATCGGTTATA TTTGCCAAGATATAGACCCAGAGCAGCTACAAGATAAATCCAATGAGATTCTGACTGCCATAATCCAGGGGATGA GGAAAGAAGACCTAGTAATAATGTGAAGCTAGCTGCTACGAATGCACTCCTGAACTCATTGGAGTTCACCAAAG CAAACTTTGATAAAGAGTCTGAAAGGCACTTTATTATGCAGGTGGTCTGTGAAGCCACACAGTGTCCAGATACGA GGGTACGAGTGGCTGCTTTACAGAATCTGGTGAAGATAATGTCCTTATATTATCAGTACATGGAGACATATATGG GTCCTGCTCTTTTTGCAATCACAATCGAAGCAATGAAAAGTGACATTGATGAGGTGGCTTTACAAGGGATAGAAT TCTGGTCCAATGTCTGTGATGAGGAAATGGATTTGGCCATTGAAGCTTCAGAGGCAGCAGAACAAGGACGGCCCC AACAGGACGAAAATGATGATGACGATGACTGGAACCCCTGCAAAGCAGCAGGGGTGTGCCTCATGCTTCTGGCCA CCTGCTGTGAAGATGACATTGTCCCACATGTCCTCCCCTTCATTAAAGAACACATCAAGAACCCAGATTGGCGGT ACCGGGATGCAGCAGTGATGGCTTTTGGTTGTATCTTGGAAGGACCAGAGCCCAGTCAGCTCAAACCACTAGTTA TACAGGCTATGCCCACCCTAATAGAATTAATGAAAGACCCCAGTGTAGTTGTTCGAGATACAGCTGCATGGACTG TAGGCAGAATTTGTGAGCTGCTTCCTGAAGCTGCCATCAATGATGTCTACTTGGCTCCCCTGCTACAGTGTCTGA TTGAGGGTCTCAGTGCTGAACCCAGAGTGGCTTCAAATGTGTGCTGGGCTTTCTCCAGTCTGGCTGAAGCTGCTT TTCAGAAGCTCCTAGAGACTACAGACAGACCTGATGGACACCAGAACAACCTGAGGAGTTCTGCATATGAATCTC TGATGGAAATTGTGAAAAACAGTGCCAAGGATTGTTATCCTGCTGTCCAGAAAACGACTTTGGTCATCATGGAAC GACTGCAACAGGTTCTTCAGATGGAGTCACATATCCAGAGCACATCCGATAGAATCCAGTTCAATGACCTTCAGT CTTTACTCTGTGCAACTCTTCAGAATGTTCTTCGGAAAGTGCAACATCAAGATGCTTTGCAGATCTCTGATGTGG TTATGGCCTCCCTGTTAAGGATGTTCCAAAGCACAGCTGGGTCTGGGGGAGTACAAGAGGATGCCCTGATGGCAG TTAGCACACTGGTGGAAGTGTTGGGTGGTGAATTCCTCAAGTACATGGAGGCCTTTAAACCCTTCCTGGGCATTG GATTAAAAATTATGCTGAATACCAGGTTTGTTTGGCAGCTGTGGGCTTAGTGGGAGACTTGTGCCGTGCCCTGC AATCCAACATCATACCTTTCTGTGACGAGGTGATGCAGCTGCTTCTGGAAAATTTGGGGAATGAGAACGTCCACA GGTCTGTGAAGCCGCAGATTCTGTCAGTGTTTGGTGATATTGCCCTTGCTATTGGAGGAGAGTTTAAAAAATACT TAGAGGTTGTATTGAATACTCTTCAGCAGGCCTCCCAAGCCCAGGTGGACAAGTCAGACTATGACATGGTGGATT ATCTGAATGAGCTAAGGGAAAGCTGCTTGGAAGCCTATACTGGAATCGTCCAGGGATTAAAGGGGGATCAGGAGA ACGTACACCCGGATGTGATGCTGGTACAACCCAGAGTAGAATTTATTCTGTCTTTCATTGACCACATTGCTGGAG ATGAGGATCACACAGATGGAGTAGTAGCTTGTGCTGCTGGACTAATAGGGGACTTATGTACAGCATTTGGGAAGG ATGTACTGAAATTAGTAGAAGCTAGGCCAATGATCCATGAATTGTTAACTGAAGGGCGGAGATCGAAGACTAACA AAGCAAAAACCCTTGCTACATGGGCAACAAAAGAACTGAGGAAACTGAAGAACCAAGCT<u>TGA</u>TCTGTTACCATTG GGATGATAACCTGAGGACCCCCACTGGAAATCTCCCATCTTTTGAAAAACCTGGAAGTGAGGAGTGTGCACGGAT GCTGAATGTTTGGGAATGAGAGGATGAGTGAGTGAGGCTTGAAAACACACCACATTGAAAATCCTGCCACAGCAG 

### 2236/2682 FIGURE 2030

MELITILEKTVSPDRLELEAAQKFLERAAVENLPTFLVELSRVLANPGNSQVARVAAGLQIKNSLTSKDPDIKAQ
YQQRWLAIDANARREVKNYVLQTLGTETYRPSSASQCVAGIACAEIPVNQWPELIPQLVANVTNPNSTEHMKEST
LEAIGYICQDIDPEQLQDKSNEILTAIIQGMRKEEPSNNVKLAATNALLNSLEFTKANFDKESERHFIMQVVCEA
TQCPDTRVRVAALQNLVKIMSLYYQYMETYMGPALFAITIEAMKSDIDEVALQGIEFWSNVCDEEMDLAIEASEA
AEQGRPPEHTSKFYAKGALQYLVPILTQTLTKQDENDDDDDWNPCKAAGVCLMLLATCCEDDIVPHVLPFIKEHI
KNPDWRYRDAAVMAFGCILEGPEPSQLKPLVIQAMPTLIELMKDPSVVVRDTAAWTVGRICELLPEAAINDVYLA
PLLQCLIEGLSAEPRVASNVCWAFSSLAEAAYEAADVADDQEEPATYCLSSSFELIVQKLLETTDRPDGHQNNLR
SSAYESLMEIVKNSAKDCYPAVQKTTLVIMERLQQVLQMESHIQSTSDRIQFNDLQSLLCATLQNVLRKVQHQDA
LQISDVVMASLLRMFQSTAGSGGVQEDALMAVSTLVEVLGGEFLKYMEAFKPFLGIGLKNYAEYQVCLAAVGLVG
DLCRALQSNIIPFCDEVMQLLLENLGNENVHRSVKPQILSVFGDIALAIGGEFKKYLEVVLNTLQQASQAQVDKS
DYDMVDYLNELRESCLEAYTGIVQGLKGDQENVHPDVMLVQPRVEFILSFIDHIAGDEDHTDGVVACAAGLIGDL
CTAFGKDVLKLVEARPMIHELLTEGRRSKTNKAKTLATWATKELRKLKNQA

### 2237/2682 FIGURE 2031

GGGCGTGATTTGAGCCCCGTTTTTATTTTCTGTGAGCCACGTCCTCCTCGAGGGGGGTCAATCTGGCCAAAAGGAG TGATGCGCTTCGCCTGGACCGTGCTCCTGCTCGGGCCTTTTGCAGCTCTGCGCGCCTAGTGCACTGCGCCCCTCCCG ACAACGGGCAGGTGTTCAGCTTGCTGAGCCTGGGCTCACAGTACCAGCCTCAGCGCCGCGGGACCCGGGCGCCG CCGCGGCGCGAACGCGGCCGGCTCATCTGGAGTCACCGCTGGCCGCCCCAGGCCCACCGCCCGTCACTGGT AAGTTCCTGCGCTCAGTAACCTGCGGCCGCCCAGCCGCGTGGACGGCATGGTGGGCGACGACCCTTACAACCCCT ACAAGTACTCTGACGACAACCCTTATTACAACTACTACGATACTTATGAAAGGCCCAGACCTGGGGGCAGGTACC GGCCCGGATACGGCACTGGCTACTTCCAGTACGGTCTCCCAGACCTGGTGGCCGACCCCTACTACATCCAGGCGT CCACGTACGTGCAGAAGATGTCCATGTACAACCTGAGATGCGCGGGGGGAGAAAACTGTCTGGCCAGTACAGCAT ACAGGGCAGATGTCAGAGATTATGATCACAGGGTGCTGCTCAGATTTCCCCAAAGAGTGAAAAACCAAGGGACAT CAGATTTCTTACCCAGCCGACCAAGATATTCCTGGGAATGGCACAGTTGTCATCAACATTACCACAGTATGGATG AGTTTAGCCACTATGACCTGCTTGATGCCAACACCCAGAGGAGAGTTGGCTGAAGGCCACAAAGCAAGTTTCTGTC GCTGTTATGATACCTATGGTGCAGACATAGACTGCCAGTGGATTGATATTACAGATGTAAAACCTGGAAACTATA TCCTAAAGGTCAGTGTAAACCCCAGCTACCTGGTTCCTGAATCTGACTATACCAACAATGTTGTGCGCTGTGACA TTCGCTACACAGGACATCATGCGTATGCCTCAGGCTGCACAATTTCACCGTATTAGAAGGCAAAGCAAAACTCCC AATGGATAAATCAGTGCCTGGTGTTCTGAAGTGGGAAAAAAATAGACTAACTTCAGTAGGATTTATGTATTTTGAA **AAAGAGAACAGAAAACAACAAAAGAATTTTTGTTTGGACTGTTTTCAATAACAAAGCACATAACTGGATTTTGAA** CGCTTAAGTCAATCATTACTTGGAAATTTXTAATGTTTATTATTTACATCAACTTTGTGAATTAACACAGTGTTT CAATTCTGTAATTTCATATTTGACTCTTT

# 2238/2682 FIGURE 2032

MRFAWTVLLLGPLQLCALVHCAPPAAGQQQPPREPPAAPGAWRQQIQWENNGQVFSLLSLGSQYQPQRRRDPGAA
VPGAANASAQQPRTPILLIRDNRTAAARTRTAGSSGVTAGRPRPTARHWFQAGYSTSRARERGASRAENQTAPGE
VPALSNLRPPSRVDGMVGDDPYNPYKYSDDNPYYNYYDTYERPRPGGRYRPGYGTGYFQYGLPDLVADPYYIQAS
TYVQKMSMYNLRCAAEENCLASTAYRADVRDYDHRVLLRFPQRVKNQGTSDFLPSRPRYSWEWHSCHQHYHSMDE
FSHYDLLDANTQRRVAEGHKASFCLEDTSCDYGYHRRFACTAHTQGLSPGCYDTYGADIDCQWIDITDVKPGNYI
LKVSVNPSYLVPESDYTNNVVRCDIRYTGHHAYASGCTISPY

### 2239/2682 FIGURE 2033

## 2240/2682 FIGURE 2034

 ${\tt MGALGLEGRGGRLQGRGSLLLAVAGATSLVTLLLAVPITVLAVLALVPQDQGGLGFRSCQRRSQKQISAPGSQLPTS}$ 

# FIGURE 2035

CGGCCAGCACCCCGGCACCTCCTCTGCGGCAGCTGCGCCAAGCGCAGTGCCGCAGCGCACGCCGGAGTG GGTGCGCCGAGATCGCCTCCGCAGGATGAGGGAGTGGTGGGTCCAGGTGGGGCTGCTGCCCCTGCTTGC TGCGTACCTGCACATCCCACCCCTCAGCTCTCCCCTGCCCTTCACTCATGGAAGTCTTCAGGCAAGTTTTTCAC TTACAAGGGACTGCGTATCTTCTACCAAGACTCTGTGGGTGTGGTTGGAAGTCCAGAGATAGTTGTGCTTTTACA CGGTTTTCCAACATCCAGCTACGACTGGTACAAGATTTGGAAGGGTCTGACCTTGAGGTTTCATCGGGTGATTGC CCTTGATTTCTTAGGCTTTGGCTTCAGTGACAAACCGAGACCACATCACTATTCCATATTTGAGCAGGCCAGCAT AAATGGAGGTATCTTTCCTGAGACTCACCGTCCACTCCTTCTCCAAAAGCTACTCAAAGATGGAGGTGTGCTGTC ACCCATCCTCACACGACTGATGAACTTCTTTGTATTCTCTCGAGGTCTCACCCCAGTCTTTGGGCCGTATACTCG GCCCTCTGAGAGTGAGCTGTGGGACATGTGGGCAGGGATCCGCAACAATGACGGGAACTTAGTCATTGACAGTCT TCATTTTATCTATGGGCCATTGGATCCTGTAAATCCCTATCCAGAGTTTTTGGAGCTGTACAGGAAAACGCTGCC GCGGTCCACAGTGTCGATTCTGGATGACCACATTAGCCACTATCCACAGCTAGAGGATCCCATGGGCTTCTTGAA  ${\tt TGCATATATGGGCTTCATCAACTCCTTC}$   ${\tt TGA}$   ${\tt GCTGGAAAGAGTAGCTTCCCTGTATTACCTCCCCTACTCCCTTA}$ TGTGTTGTGTATTCCACTTAGGAAGAATGCCCAAAAGAGGTCCTGGCCATCAAACATAATTCTCTCACAAAGTC CACTTTACTCAAATTGGTGAACAGTGTATAGGAAGAAGCCAGCAGGAGCTCTGACTAAGGTTGACATAATAGTCC ACCTCCCATTACTTTGATATCTGATCAAATGTATAGACTTGGCTTTGTTTTTTGTGCTATTAGGAAATTCTGATG AAATATTTAGAAGTGCTAATTTCTGGCCCACCCCAACAGGAATTCTATAGTAAGGAGGAGGAGAAGGGGGGCTC CTTCCCTCTCCTCGAATGACGTTATGGGCACATGCCTTTTAAAAGTTCTTTAAGCAACACAGAGCTGAGTCCTCT TTGTCATACCTTTGGATTTAGTGTTTCATCAGCTGTTTTTAGTTATAAACATTTTGTTAAAATAGATATTGGTTT AACCAGCATACCCTTACTCTGCCAGAGTAGTGAAGCTAATTAAACACGTTTGGTTTCTGAATAAATTGAACTAAA TCCAAACTATTTCCTAAAATCACAGGACATTAAGGACCAATAGCATCTGTGCCAGAGATGTACTGTTATTAGCTG GGAAGACCAATTCTAACAGCAAATAACAGTCTGAGACTCCTCATACCTCAGTGGTTAGAAGCATGTCTCTCTTGA GCTACAGTAGAGGGGAAGGGATTGTTGTGTAGTCAAGTCACCATGCTGAATGTACACTGATTCCTTTATGATGAC 

### 2242/2682 FIGURE 2036

MVRRDRLRRMREWWVQVGLLAVPLLAAYLHIPPPQLSPALHSWKSSGKFFTYKGLRIFYQDSVGVVGSPEIVVLL HGFPTSSYDWYKIWKGLTLRFHRVIALDFLGFGFSDKPRPHHYSIFEQASIVEALLRHLGLQNRRINLLSHDYGD IVAQELLYRYKQNRSGRHTIKSLCLSNGGIFPETHRPLLLQKLLKDGGVLSPILTRLMNFFVFSRGLTPVFGPYT RPSESELWDMWAGIRNNDGNLVIDSLLQYINQRKKFRRRWVGALASVTIPIHFIYGPLDPVNPYPEFLELYRKTL PRSTVSILDDHISHYPQLEDPMGFLNAYMGFINSF

### 2243/2682 FIGURE 2037

GGCGGCTGGGTAGAGTCAGGGCCGGGGGCGCACGCCGGAACACCTGGGCCGCCGGGCACCGAGCGTCGGGGGGCCT GCCGCTGCACGGCCGCTCCTACTCCAAGCCGCCGCAGTGCCTTGACATCCCTGCCGACCTGCCGCTCTGCCACAC GGTGGGCTACAAGCGCATGCGGCTGCCCAACCTGCTGGAGCACGAGAGCCTGGCCGAAGTGAAGCAGCAGCGAG CTGTCTCGACCGGCCCATCTACCCGTGCCGCTCGCTGTGCGAGGCCGTGCGCGCCGGCTGCGCCGCCCATGGA GGCCTACGGCTTCCCCTGGCCTGAGATGCTGCACTGCCACAAGTTCCCCCTGGACAACGACCTCTGCATCGCCGT GCAGTTCGGGCACCTGCCGCCCCCCCCCCCCCAGTGACCAAGATCTGCGCCCAGTGTGAGATGGAGCACAGTGC TGACGGCCTCATGGAGCAGATGTGCTCCAGTGACTTTGTGGTCAAAATGCGCATCAAGGAGATCAAGATAGAGAA TGGGGACCGGAAGCTGATTGGAGCCCAGAAAAAGAAGAAGCTGCTCAAGCCGGGCCCCTGAAGCGAAGGACAC CAAGCGGCTGGTGCTGCACATGAAGAATGGCGCGGGCTGCCCCTGCCCACAGCTGGACAGCCTGGCGGGCAGCTT  $\verb|CCTGGTCATGGGCCGCAAAGTGGATGGACAGCTGCTGCTCATGGCCGTCTACCGCTGGGACAAGAAGAATAAGGA| \\$ GATGAAGTTTGCAGTCAAATTCATGTTCTCCTACCCCTGCTCCCTCTACTACCCCTTTCTTCTACGGGGCGGCAGA  $\texttt{GCCCCAC} \underline{\textbf{TGA}} \texttt{AGGGCACTCCTCCTTGCCCTGCCAGCTGTGCCTTGCCTCTGGCCCCGCCCCAACTTCCAG}$ GCTGACCCGGCCCTACTGGAGGGTGTTTTCACGAATGTTGTTACTGGCACAAGGCCTAAGGGATGGGCACGGAGC CCAGGCTGTCCTTTTTGACCCAGGGGTCCTGGGGTCCCTGGGATGTTGGGCTTCCTCTCAGGAGCAGGGCTTC TTCATCTGGGTGAAGACCTCAGGGTCTCAGAAAGTAGGCAGGGGAGAGGGGAAAGGTAAGGGAAAGGTGGAGGGCTC AGGGCACCCTGAGGCGGAGGTTTCAGAGTAGAAGGTGATGTCAGCTCCAGCTCCCCTCTGTCGGTGGTGGGGCCT CACCTTGAAGAGGGAAGTCTCAATATTAGGCTAAGCTATTTGGGAAAGTTCTCCCCACCGCCCCTGTACGCGTCA TCCTAGCCCCCTTAGGAAAGGAGTTAGGGTCTCAGTGCCTCCAGCCACACCCCCTGCCTTCCCCAGCTTGCCCA CTGGTCCGCCCGTGGCTCGATTCCCGGGATTCATTCCTCAGCCTCTGCTTCTCCCTTTTATCCCAATAAGTTATT GCTACTGCTGTGAGGCCATAGGTACTAGACAACCAATACATGCAGGGTTGGGTTTTCTAATTTTTTAACTTTTT AATTAAATCAAAGGTCGACGCGCGGCCGCG

# 2244/2682 FIGURE 2038

MRAAAAAGGVRTAALALLLGALHWAPARCEEYDYYGWQAEPLHGRSYSKPPQCLDIPADLPLCHTVGYKRMRLPN LLEHESLAEVKQQASSWLPLLAKRCHSDTQVFLCSLFAPVCLDRPIYPCRSLCEAVRAGCAPLMEAYGFPWPEML HCHKFPLDNDLCIAVQFGHLPATAPPVTKICAQCEMEHSADGLMEQMCSSDFVVKMRIKEIKIENGDRKLIGAQK KKKLLKPGPLKRKDTKRLVLHMKNGAGCPCPQLDSLAGSFLVMGRKVDGQLLLMAVYRWDKKNKEMKFAVKFMFS YPCSLYYPFFYGAAEPH

### 2245/2682 FIGURE 2039

CTGGGCCCCGTGGAACTCCAGCCTGCGCCACCACGTCACGCACACGCTCGGCGCTGCGATCCGCGCATATAACGA TATTTGGATTTGACCTGCATTTTGGAATTTATCTACACTTAAAAATCCCACCAGCAGTTGGAGGTCCAGTTGGATA  ${\tt CACCCCCCAGATGGAGGCTGGGCAGTGGTAATTGGAGCTTTCATTTCCATCGGCTTCTTATGCATT}$ TCCCAAATCAATTACTGTCTTCTTCAAAGAGATTGAAGGTATATTCCATGCCACCACCAGCGAAGTGTCATGGAT ACTATACGTCTGTATTGGAGTCATTGGAGGTCTTGGGCTTGCCTTCAACTTGAATCCAGCTCTGACCATGATTGG AGCATCCCTTGAGAAAGCTGGAAAATCTGGTGTGAAAAAAGATCTGCATGATGCAAATACAGATCTTATTGGAAG ACACCCTAAACAAGAGAAACGATCAGTCTTCCAAACAATTAATCAGTTCCTGGACTTAACCCTATTCACCCACAG AGGCTTTTTGCTATACCTCTCTGGAAATGTGATCATGTTTTTTGGACTCTTTGCACCTTTGGTGTTTCTTAGTAG AGCCCGACCATCTATGGGACTTGTAGCCAACACAAAGCCAATAAGACCTCGAATTCAGTATTTCTTTGCGGCTTC CGTTGTTGCAAATGGAGTGTCATATGCTAGCACCTTTATCCACTACCTATGTTGGATTCTGTGTCTATGCGGG ATTCTTTGGATTTGCCTTCGGGTGGCTCAGCTCCGTATTGTTTGAAACATTGATGGACCTTGTTGGACCCCAGAG GTTCTCCAGCGCTGTGGGATTGGTGACCATTGTGGAATGCTGTCCTGTCCTCCTGGGGCCCACCACTTTTAGGTCG GCTCAATGACATGTATGGAGACTACAAATACACATACTGGGCATGTGGCGTCCTAATTATTTCAGGTATCTA TCTCTTCATTGGCATGGGCATCAATTATCGACTTTTGGCAAAAGAACAGAAAGCAAACGAGCAGAAAAAGGAAAG TAAAGAGGAAGACCAGTATAGATGTTGCTGGGAAGCCAAATGAAGTTACCAAAGCAGCAGAATCTCCGGACCA GAAAGACACAGAAGGAGGGCCCAAGGAGGAGGAAAGTCCAGTC<u>TGA</u>ATCCATGGGGCTGAAGGGTAAATTGAGCA GTTCATGACCCAGGATATCTGAAAATATTCTACTGGCCTGTAATCTACCAGTGGTGCTCAATGCAAATAGTAGAC GAGGGAATGATTGGTAGCAAAGGATGGGGGAAAGAAGTAGGTTCTGTTTTGTTTTAATCTTAGCTTTTAA TAGTGTCATAAAGATTATAATATGTGCCTTAAGTTTTAGTCTTTAGAACTCTAGAGAGCCTTAACTTCTTAAACC AAAATTTAAAATTAATCTTGCTTCATTGTTACATGTAATATATTTCAGACATTTTCACTGGAAGATTTATGAACA GAAATATTGGTTGAAAGTTAGAGATTTTACAAAATGCTGACAAAAATATTTTCCTAGCATCAGTAGATTTCTGGC ATATGTTTCTGCTAGCTATATTTTAGGAAATTCAAAGCATAAAACTTTGGCAACATCTTGGCTGTTCTAGACAC AGTGTACTTGTCAACCCCTCTCAGGTACCTTTTCTTGGGATGCTTATTAGAAGCCAAGTAAAGTGCTTAAGGTTT GTTTTCATTAAATTAGCTATTTCTGCTCCCCTGTTCAAAGATGCATTTTGAGTGTTTATAGATCACTGCCCTTTT TGAAATCACCTGGTATTATTTTTCTTACTGGAAAAGTTAGTATTAAAATCTACAGAACTACATATTTGTGCCTCC TTGGTAAATACAACACCTCAATTAAATGTAGACAGATATTTCAAACATCAGCTGAATTCACTTAAGTTTTTCCA TTTTTTAAGGTTTGCAAATTAAAAAGGGCCAGAAAAATTTGGCACCAGGCAAACGAATAAAGATAGGATTGGGAA AGAAGTTGCTAAGTGTGCTTAGTTTTAATAAGTAATTCCTTCTCTTTTTTCAGAGAAGGCCTTACAGAAAATTGT TGTGCTTAGAATTGCTGGATGCATTTTTACCCTCCACACAAACCTAAAAATTTTGTGACCCCTTTCACTTACCTG AAAAGTAGAGAAATGGATTCAGTATAAGGATAAGGAGGGAAGGTGGACCAGAATGAAAACTGTAAATATTTTTTT AACCTAATATCACTTAAATCGAGGCAGAAAGATATAGACATTCAATGAATTATATTCAATGCATTTAAAATACCA CTGTAATTGACAGAGTAAAAGTATAGATACAAAACCTTGTGTAAGAGGCTGACTTTTCCAAATAAACATTTTTTA AGAAAACATTTCTTCTCCCAAATGTCTATTTTCTTGAGGAAAATATTGCTGTGTCTTCATTTTCATTACCAGGTT 

### 2246/2682 FIGURE 2040

MPPAVGGPVGYTPPDGGWGWAVVIGAFISIGFSYAFPKSITVFFKEIEGIFHATTSEVSWISSIMLAVMYGGGPI SSILVNKYGSRIVMIVGGCLSGCGLIAASFCNTVQQLYVCIGVIGGLGLAFNLNPALTMIGKYFYKRRPLANGLA MAGSPVFLCTLAPLNQVFFGIFGWRGSFLILGGLLLNCCVAGALMRPIGPKPTKAGKDKSKASLEKAGKSGVKKD LHDANTDLIGRHPKQEKRSVFQTINQFLDLTLFTHRGFLLYLSGNVIMFFGLFAPLVFLSSYGKSQHYSSEKSAF LLSILAFVDMVARPSMGLVANTKPIRPRIQYFFAASVVANGVCHMLAPLSTTYVGFCVYAGFFGFAFGWLSSVLF ETLMDLVGPQRFSSAVGLVTIVECCPVLLGPPLLGRLNDMYGDYKYTYWACGVVLIISGIYLFIGMGINYRLLAK EQKANEQKKESKEEETSIDVAGKPNEVTKAAESPDQKDTEGGPKEEESPV

### 2247/2682 FIGURE 2041

GGCACGAGGAGGAGGAGCCGCGGCCGGCGGCTGAGGCCACCCCGGCGGCGGCTGGAGAGCGAGGAGCGGG TGAAGCATGGCCAGCAGCGGCATGGCTGACAGCGCCAACCACCTGCCCTTCTTTTTCGGCAACATCACCCGGGAG GAGGCAGAAGATTACCTGGTCCAGGGGGGCATGAGTGATGGGCTTTATTTGCTGCGCCAGAGCCGCAACTACCTG GGTGGCTTCGCCCTGTCCGTGGCCCACGGGAGGAAGGCACCACCACTACACCATCGAGCGGGAGCTGAATGGCACC TACGCCATCGCCGGTGGCAGGACCCATGCCAGCCCCGCCGACCTCTGCCACTACCACTCCCAGGAGTCTGATGGC CTGGTCTGCCTCCTCAAGAAGCCCTTCAACCGGCCCCAAGGGGTGCAGCCCAAGACTGGGCCCTTTGAGGATTTG AAGGAAAACCTCATCAGGGAATATGTGAAGCAGACATGGAACCTGCAGGGTCAGGCTCTGGAGCAGGCCATCATC AGTCAGAAGCCTCAGCTGGAGAAGCTGATCGCTACCACAGCCCATGAAAAAATGCCTTGGTTCCATGGAAAAAATC TCTCGGGAAGAATCTGAGCAAATTGTCCTGATAGGATCAAAGACAAATGGAAAGTTCCTGATCCGAGCCAGAGAC AACAACGGCTCCTACGCCCTGTGCCTGCACGAAGGGGAAGGTGCTGCACTATCGCATCGACAAAGACAAGACA GGGAAGCTCTCCATCCCCGAGGGAAAGAAGTTCGACACGCTCTGGCAGCTAGTCGAGCATTATTCTTATAAAGCA GATGGTTTGTTAAGAGTTCTTACTGTCCCATGTCAAAAAATCGGCACACAGGGAAATGTTAATTTTGGAGGCCGT CCACAACTTCCAGGTTCCCATCCTGCGACTTGGTCAGCGGGTGGAATAATCTCAAGAATCAAATCATACTCCTTC CCAAAGCCTGGCCACAGAAAGTCCTCCCCTGCCCAAGGGAACCGGCAAGAGAGTACTGTGTCATTCAATCCGTAT GAGCCAGAACTTGCACCCTGGGCTGCAGACAAAGGCCCCCAGAGAGAAGCCCTACCCATGGACACAGAGGTGTAC GAGAGCCCCTACGCGGACCCTGAGGAGATCAGGCCCAAGGAGGTTTACCTGGACCGAAAGCTGCTGACGCTGGAA GACAAAGAACTGGGCTCTGGTAATTTTGGAACTGTGAAAAAGGGCTACTACCAAATGAAAAAAGTTGTGAAAAACC GTGGCTGTGAAAATACTGAAAAACGAGGCCAATGACCCCGCTCTTAAAGATGAGTTATTAGCAGAAGCAAATGTC ATGCAGCAGCTGGACAACCCGTACATCGTGCGCATGATCGGGATATGCGAGGCCGAGTCCTGGATGCTAGTTATG GAGATGGCAGAACTTGGTCCCCTCAATAAGTATTTGCAGCAGAACAGACATGTCAAGGATAAGAACATCATAGAA  $\tt CTGGTTCATCAGGTTTCCATGGGCATGAAGTACTTGGAGGAGGAGCAATTTTGTGCACAGAGATCTGGCTGCAAGA$ AATGTGTTGCTAGTTACCCAACATTATGCCAAGATCAGTGATTTCGGACTCTCCAAAGCACTGCGTGCTGATGAA AACTACTACAAGGCCCAGACCCATGGAAAGTGGCCTGTCAAGTGGTACGCTCCGGAATGCATCAACTACTACAAG TTCTCCAGCAAAAGCGATGTCTGGAGCTTTGGAGTGTTGATGTGGGAAGCATTCTCCTATGGGCAGAAGCCATAT CGAGGGATGAAAGGAAGTGAAGTCACCGCTATGTTAGAGAAAGGAGAGCGGATGGGGTGCCCTGCAGGGTGTCCA AGAGAGATGTACGATCTCATGAATCTGTGCTGGACATACGATGTGGAAAACAGGCCCGGATTCGCAGCAGTGGAA  $\mathtt{CTGCGGCTGCGCAATTACTACTATGACGTGGTGAAC extbf{TAA}}\mathtt{CCGCTCCCGCACCTGTCGGTGGCTGCCTTTGATCAC}$ CTTGGATGGAACATGCCCACAACTTGTCACCCAAAGCCTGTCCCAGGACTCACCCTCCACAAAGCAAAGGCAGTC ACAGGTTATTTTTACGATCTGTTTCCAAATCCCTTTCATGTCTTTCCACTTCTCTGGGTCCCGGGGTGCATTTGT TACTCATCGGGCCCAGGGACATTGCAGAGTGGCCTAGAGCACTCTCACCCCAAGCGGCCTTTTCCAAATGCCCAA GGATGCCTTAGCATGTGACTCCTGAAGGGAAGGCAAAGGCAGAGGAATTTGGCTGCTTCTACGGCCATGAGACTG ATCCCTGGCCACTGAAAAGCTTTCCTGACAATAAAAATGTTTTGAGGCTTTAAAAAGAAAATCAAGTTTGACCAG 

### 2248/2682 FIGURE 2042

MASSGMADSANHLPFFFGNITREEAEDYLVQGGMSDGLYLLRQSRNYLGGFALSVAHGRKAHHYTIERELNGTYA IAGGRTHASPADLCHYHSQESDGLVCLLKKPFNRPQGVQPKTGPFEDLKENLIREYVKQTWNLQGQALEQAIISQ KPQLEKLIATTAHEKMPWFHGKISREESEQIVLIGSKTNGKFLIRARDNNGSYALCLLHEGKVLHYRIDKDKTGK LSIPEGKKFDTLWQLVEHYSYKADGLLRVLTVPCQKIGTQGNVNFGGRPQLPGSHPATWSAGGIISRIKSYSFPK PGHRKSSPAQGNRQESTVSFNPYEPELAPWAADKGPQREALPMDTEVYESPYADPEEIRPKEVYLDRKLLTLEDK ELGSGNFGTVKKGYYQMKKVVKTVAVKILKNEANDPALKDELLAEANVMQQLDNPYIVRMIGICEAESWMLVMEM AELGPLNKYLQQNRHVKDKNIIELVHQVSMGMKYLEESNFVHRDLAARNVLLVTQHYAKISDFGLSKALRADENY YKAQTHGKWPVKWYAPECINYYKFSSKSDVWSFGVLMWEAFSYGQKPYRGMKGSEVTAMLEKGERMGCPAGCPRE MYDLMNLCWTYDVENRPGFAAVELRLRNYYYDVVN

### 2249/2682 FIGURE 2043A

CGCCGTGGTAGCAGCCTCAGCCGTTTCTGGAGTCTCGGGCCCACAGTCACCGCCGCTTACCTGCGCCTCCTCGAG CCTCCGGAGTCCCCGTCCGCCCCACAGGCCGGTTCGCCGTCTCCCCCACGCCGCCTCGCCTGCCGCCG CGCTCGTCCCTCCGGGCCGACATGAGTGGGGACCACCTCCACAACGATTCCCAGATCGAAGCGGATTTCCGATTG CGGGAAAAGTCCAAGCATAGCAACAGTGAACATAAAGATTCTGAAAAGAACACAAAGAGAAGGAGAAGACAAA CACAAAGATGGAAGCTCAGAAAAGCATAAAGACAAACATAAAGACAGAGACAAGGAAAAACGAAAAGAGGAAAAG GTTCGAGCCTCTGGGGATGCAAAAATAAAGAAGGAGAAAATGGCTTCTCTAGTCCACCACAAATTAAAGAT GAACCTGAAGATGATGGCTATTTTGTTCCTCCTAAAGAGGATATAAAGCCATTAAAGAGACCTCGAGATGAGGAT GAGGATGGTAAATTGAAAAAACCCAAGAATAAAGATAAAGATAAAAAGTTCCTGAGCCAGATAACAAGAAAAAG AAGCCGAAGAAGAAGAGGAACAGAAGTGGAAATGGTGGGAAGAAGAGCGCTATCCTGAAGGCATCAAGTGGAAA TTCCTAGAACATAAAGGTCCAGTATTTGCCCCACCATATGAGCCTCTTCCAGAGAATGTCAAGTTTTATTATGAT GGTAAAGTCATGAAGCTGAGCCCCAAAGCAGGAAGTAGCTACGTTCTTTGCAAAAATGCTCGACCATGAATAT ACTACCAAGGAAATATTTAGGAAAAATTTCTTTAAAGACTGGAGAAAGGAAATGACTAATGAAGAGAAGAATATT ATCACCAACCTAAGCAAATGTGATTTTACCCAGATGAGCCAGTATTTCAAAGCCCAGACGGAAGCTCGGAAACAG ATGAGCAAGGAAGAAACTGAAAATCAAAGAGGAGAATGAAAAATTACTGAAAGAATATGGATTCTGTATTATG GATAACCACAAAGAGAGGATTGCTAACTTCAAGATAGAGCCTCCTGGACTTTTCCGTGGCCGCGGCAACCACCCC AAGATGGGCATGCTGAAGAGACGAATCATGCCCGAGGATATAATCATCAACTGTAGCAAAGATGCCAAGGTTCCT TCTCCTCCTCCAGGACATAAGTGGAAAGAAGTCCGGCATGATAACAAGGTTACTTGGCTGGTTTCCTGGACAGAG AACATCCAAGGTTCCATTAAATACATCATGCTTAACCCTAGTTCACGAATCAAGGGTGAGAAGGACTGGCAGAAA TACGAGACTGCTCGGCGGCTGAAAAAATGTGTGGACAAGATCCGGAACCAGTATCGAGAAGACTGGAAGTCCAAA GAGATGAAAGTCCGGCAGAGAGCTGTAGCCCTGTACTTCATCGACAAGCTTGCTCTGAGAGCAGGCAATGAAAAG GAGGAAGGAGAAACAGCGGACACTGTGGGCTGCTCACTTCGTGTGGAGCACATCAATCTACACCCAGAGTTG GATGGTCAGGAATATGTGGTAGAGTTTGACTTCCTCGGGAAGGACTCCATCAGATACTATAACAAGGTCCCTGTT GAGAAACGAGTTTTTAAGAACCTACAACTATTTATGGAGAACAAGCAGCCCGAGGATGATCTTTTTGATAGACTC GCCTCCATCACGCTACAGCAGCAGCTAAAAGAACTGACAGCCCCGGATGAGAACATCCCAGCGAAGATCCTTTCT TATAACCGTGCCAATCGAGCTGTTGCAATTCTTTGTAACCATCAGAGGGCACCACCAAAAACTTTTGAGAAGTCT ATGATGAACTTGCAAACTAAGATTGATGCCAAGAAGGAACAGCTAGCAGATGCCCGGAGAGACCTGAAAAGTGCT AAGGCTGATGCCAAGGTCATGAAGGATGCAAAGACGAAGAAGGTAGTAGAGTCAAAGAAGAAGGCTGTTCAGAGA CTGGAGGAACAGTTGATGAAGCTGGAAGTTCAAGCCACAGACCGAGAGGAAAATAAACAGATTGCCCTGGGAACC TCCAAACTCAATTATCTGGACCCTAGGATCACAGTGGCTTGGTGCAAGAAGTGGGGTGTCCCAATTGAGAAGATT TACAACAAAACCCAGCGGGAGAAGTTTGCCTGGGCCATTGACATGGCTGATGAAGACTATGAGTTTTACCCAGTC TCAAGAGCCAGAGTTCTGTGAAGAGGAACAGTGTGGT,TTGGGAAAGATGGATAAACTGAGCCTCACTTGCCCTCG TGCCTGGGGGAGAGAGGCAGCAAGTCTTAACAAACCAACATCTTTGCGAAAAGATAAACCTGGAGATATTATAAG GGAGAGCTGAGCCAGTTGTCCTATGGACAACTTATTTAAAAATATTTCAGATATCAAAATTCTAGCTGTATGATT TGTTTTGAATTTTGTTTTTTTTTCAAGAGGGCAAGTGGATGGGAATTTGTCAGCGTTCTACCAGGCAAATTCAC TGTTTCACTGAAATGTTTGGATTCTCTTAGCTACTGTATGCAAAGTCCGATTATATTGGTGCGTTTTTACAGTTA GGGTTTTGCAATAACTTCTATATTTTAATAGAAATAAATTCCTAAACTCCCTTCCCTCTCTCCCATTTCAGGAAT TTAAAATTAAGTAGAACAAAAAACCCAGCGCACCTGTTAGAGTCGTCACTCTCTATTGTCATGGGGATCAATTTT CATTAAACTTGAAGCAGTCGTGGCTTTGGCAGTGTTTTGGTTCAGACACCTGTTCACAGAAAAAGCATGATGGGA AAATATTTCCTGACTTGAGTGTTCCTTTTTAAATGTGAATTTTTATTTCTTTTTAATTATTTTAAAATATTTAAA AAATAATCAGTGACTGAAACCATTTTCCCATCATCCTTTGTTCTGAGCATTCGCTGTACCCTTTAAGATATCCAT CTTTTTCTTTTAACCCTAATCTTTCACTTGAAAGATTTTATTGTATAAAAAGTTTCACAGGTCAATAAACTTAG AGGAAAATGAGTATTTGGTCCAAAAAAAGGAAAAATAATCAAGATTTTAGGGCTTTTATTTTTTCTTTTGTAATT GTGTAAAAAATGGAAAAAAACATAAAAAGCAGAATTTTAATGTGAAGACATTTTTTGCTATAATCATTAGTTTTA

# 2250/2682 FIGURE 2043B

### 2251/2682 FIGURE 2044

MSGDHLHNDSQIEADFRLNDSHKHKDKHKDREHRHKEHKKEKDREKSKHSNSEHKDSEKKHKEKEKTKHKDGSSE
KHKDKHKDRDKEKRKEEKVRASGDAKIKKEKENGFSSPPQIKDEPEDDGYFVPPKEDIKPLKRPRDEDDADYKPK
KIKTEDTKKEKKRKLEEEEDGKLKKPKNKDKDKKVPEPDNKKKKPKKEEEQKWKWWEEERYPEGIKWKFLEHKGP
VFAPPYEPLPENVKFYYDGKVMKLSPKAEEVATFFAKMLDHEYTTKEIFRKNFFKDWRKEMTNEEKNIITNLSKC
DFTQMSQYFKAQTEARKQMSKEEKLKIKEENEKLLKEYGFCIMDNHKERIANFKIEPPGLFRGRGNHPKMGMLKR
RIMPEDIIINCSKDAKVPSPPPGHKWKEVRHDNKVTWLVSWTENIQGSIKYIMLNPSSRIKGEKDWQKYETARRL
KKCVDKIRNQYREDWKSKEMKVRQRAVALYFIDKLALRAGNEKEEGETADTVGCCSLRVEHINLHPELDGQEYVV
EFDFLGKDSIRYYNKVPVEKRVFKNLQLFMENKQPEDDLFDRLNTGILNKHLQDLMEGLTAKVFRTYNASITLQQ
QLKELTAPDENIPAKILSYNRANRAVAILCNHQRAPPKTFEKSMMNLQTKIDAKKEQLADARRDLKSAKADAKVM
KDAKTKKVVESKKKAVQRLEEQLMKLEVQATDREENKQIALGTSKLNYLDPRITVAWCKKWGVPIEKIYNKTQRE
KFAWAIDMADEDYEF

### 2252/2682 FIGURE 2045

 $\mathsf{GGAATTCCGTGGCCAGG}$ CTGCCCCAGTCCAGGCCCTGCAGCAAGCGGGTATCGTCGGGGGGTCAGGAGGCCCCCAGGAGCAAGTGGCCCTGGC AGGTGAGCCTGAGAGTCCGCGACCGATACTGGATGCACTTCTGCGGGGGGCTCCCTCATCCACCCCCAGTGGGTGC TGACCGCGGCGCACTGCCTGGGACCGGACGTCAAGGATCTGGCCACCCTCAGGGTGCAACTGCGGGAGCAGCACC TCTACTACCAGGACCAGCTGCCAGTCAGCAGGATCATCGTGCACCCACAGTTCTACATCATCCAGACTGGAG  ${\tt CGGATATCGCCCTGCTGGAGCTGGAGGAGCCCGTGAACATCTCCAGCCGCGTCCACACGGTCATGCTGCCCCCTG}$ CACCGCCATTTCCCCTGAAGCAGGTGAAGGTCCCCATAATGGAAAACCACATTTGTGACGCAAAATACCACCTTG GCGCCTACACGGGAGACGACGTCCGCATCATCCGTGACGACATGCTGTGTGCCGGGAACAGCCAGAGGGACTCCT ACGAGGGCTGTGCCCAGCCCAACCGGCCTGGCATCTACACCCGTGTCACCTACTACTTGGACTGGATCCACCACT  $\tt ATGTCCCCAAAAAGCCG{\color{blue}{\textbf{TGA}}} GTCAGGCCTGGGTGTGCCACCTGGGTCACTGGAGGACCAACCCCTGCTGTCCAAA$ ACACCACTGCTTCCTACCCAGGTGGCGACTGCCCCCACACCTTCCCTGCCCCGTCCTGAGTGCCCCTTCCTGTC CTAAGCCCCTGCTCTCTCTGAGCCCCTTCCCCTGTCCTGAGGACCCTTCCCCATCCTGAGCCCCCTTCCCTGT CCTAAGCCTGACGCCTGCACTGGGCCCTCCGGCCCTCCCCTGCCCAGGCAGCTGGTGGTGGGCGCTAATCCTCCT GAGTGCTGGACCTCATTAAAGTGCATGGAAATC

### 2253/2682 FIGURE 2046

MLSLLLLALPVLASRAYAAPAPVQALQQAGIVGGQEAPRSKWPWQVSLRVRDRYWMHFCGGSLIHPQWVLTAAHC LGPDVKDLATLRVQLREQHLYYQDQLLPVSRIIVHPQFYIIQTGADIALLELEEPVNISSRVHTVMLPPASETFP PGMPCWVTGWGDVDNDEPLPPPFPLKQVKVPIMENHICDAKYHLGAYTGDDVRIIRDDMLCAGNSQRDSCKGDSG GPLVCKVNGTWLQAGVVSWDEGCAQPNRPGIYTRVTYYLDWIHHYVPKKP

### 2254/2682 FIGURE 2047

ATTAACCTTCTCTTAGTCTTCAACCTAAGTACTTGAATGTCAAGTACCCTCCAACCCTCAATGTCCCAAGACTTT GATCTAGCAGCCAGGGTTAGATCACAGGTGTCACTTTCAGGCGAGTAGTTAGCAACGGTATCGCTAGCAACTGAG CAGCCTCACCGCCGAGGAGGAGCGCTTCCTCGACGCCGCCGAGTACGGCAACATCCCAGTGGTGCGCAAGATGCT CGAGCACCTGGAGGTGACCGAGCTGCTGCTCAAGAAGGAGAACCTGGCGCGCATTGGCGACGCCCTGCTGCTCGC TCTGAGCCCCTGTGAGCAGGAGCTGCAGGACGACGACTTCTACGCTTACGACGAGGACGGCACGCGCTTCTCGCC GGACATCACCCCCATCATCCTGGCGGCGCACTGCCAGAAATACGAAGTGGTGCACATGCTGCTGATGAAGGGTGC CAGGATCGAGCGGCCGCACGACTATTTCTGCAAGTGCGGGGACTGCATGGAGAAGCAGAGGCACGACTCCTTCAG GGTGCTTACGGCCCTAGAGCTCAGCAACGAGCTGGCCAAGCTGGCCAACATAGAGAAGGAGTTCAAGAATGACTA TCGGAAGCTCTCCATGCAATGCAAAGACTTTGTAGTGGGTGTGCTGGATCTCTGCCGAGACTCAGAAGAGGTAGA AGCCATTCTGAATGGAGATCTGGAATCAGCAGAGCCTCTGGAGGTACACAGGCACAAAGCTTCATTAAGTCGTGT CAAACTTGCCATTAAGTATGAAGTCAAAAAGTTTGTGGCTCATCCCAACTGCCAGCAGCAGCTCTTGACGATCTG GTATGAGAACCTCTCAGGCCTAAGGGAGCAGACCATAGCTATCAAGTGTCTCGTTGTGCTGGTCGTGGCCCTGGG  ${\tt CCTTCCATTCCTGGCCATTGGCTACTGGATCGCACCTTGCAGCAGGCTGGGGAAAATTCTGCGAAGCCCTTTTAT}$ GAAGTTTGTAGCACATGCAGCTTCTTTCATCATCTTCCTGGGTCTGCTTGTGTTCAATGCCTCAGACAGGTTCGA AGGCATCACCACGCTGCCCAATATCACAGTTACTGACTATCCCAAACAGATCTTCAGGGTGAAAACCACCCAGTT AGGACCTAGGGAATACATTTTGCAGTTGTGGAATGTGCTTGACTTTGGGATGCTGTCCATCTTCATTGCTGCTTT  ${\tt CACAGCCAGATTCCTAGCTTTCCTTCAGGCAACGAAGGCACAACAGTATGTGGACAGTTACGTCCAAGAGAGTGA}$ CCTCAGTGAAGTGACACTCCCACCAGAGATACAGTATTTCACTTATGCTAGAGATAAATGGCTCCCTTCTGACCC TCAGATTATATCTGAAGGCCTTTATGCCATAGCTGTTGTGCTCAGCTTCTCTCGGATTGCGTACATCCTCCCTGC  ${\tt AAATGAGAGCTTTGGCCCCCTGCAGATCTCTCTTGGAAGGACTGTAAAGGACATATTCAAGTTCATGGTCCTCTT}$ TATTATGGTGTTTTTTGCCTTTATGATTGGCATGTTCATACTTTATTCTTACTACCTTGGGGCTAAAGTTAATGC TGCTTTTACCACTGTAGAAGAAGTTTCAAGACTTTATTTTGGTCAATATTTGGGTTGTCTGAAGTGACTTCCGT TGTGCTCAAATATGATCACAAATTCATAGAAAATATTGGATACGTTCTTTATGGAATATACAATGTAACTATGGT GGTCGTTTTACTCAACATGCTAATTGCTATGATTAATAGCTCATATCAAGAAATTGAGGATGACAGTGATGTAGA ATGGAAGTTTGCTCGTTCAAAACTTTGGTTATCCTATTTTGATGATGGAAAAACATTACCTCCACCTTTCAGTCT AGTTCCTAGTCCAAAATCATTTGTTTATTTCATCATGCGAATTGTTAACTTTCCCAAATGCAGAAGGAGAAGGCT TCAGAAGGATATAGAAATGGGAATGGGTAACTCAAAGTCCAGGTTAAACCTCTTCACTCAGTCTAACTCAAGAGT TTTTGAATCACAGTTTTAACAGCATTCTCAATCAGCCAACACGTTATCAGCAGATAATGAAAAGACTTATAAA GCGGTATGTTTTGAAAGCACAAGTAGACAAAGAAAATGATGAAGTTAATGAAGGTGAATTAAAAGAAATCAAGCA  ${\tt AGATATCTCCAGCCTTCGTTATGAACTTTTGGAAGACAAGAGCCAAGCAACTGAGGAATTAGCCATTCTAATTCA}$  ${ t TAAACTTAGTGAGAAACTGAATCCCAGCATGCTGAGATGTGAA}{ t TGACTGGAGCAACCTGGATTTGGCTTTGACTAT$ AGCACAAATGTGGGCAATAATATTTCTAAGTATGAAATACTTGAAAAACTATGATGTAAATTTTTAGTATTAACT ACCTTTATCATGTGAACCTTTAAAAGTTAGCTCTTAATGGTTTTATTGTTTTATCACATGAAAATGCATTTTATT TGTCTGCTTTGACATTACAGTGGCATACCATTGTGTTGAAAAGCCCAATATTACTATATTATTGAÂACTTTTATT CATTTTAGAGTAAACTCCACATCTTTGCACTACCTGTTTGCCTCCAAGAGACTATCAGTTCCTTGGGGACAGGGA  ${\tt CCATGTCTTATTCATCTTTGTGTCTCCAGCATCTAGTACAGTGCCTGGTATATAGTAGGTGCTCAATAAATGTTG}$ 

#### 2255/2682 FIGURE 2048

MEGSPSLRRMTVMREKGRRQAVRGPAFMFNDRGTSLTAEEERFLDAAEYGNIPVVRKMLEESKTLNVNCVDYMGQ
NALQLAVGNEHLEVTELLLKKENLARIGDALLLAISKGYVRIVEAILNHPGFAASKRLTLSPCEQELQDDDFYAY
DEDGTRFSPDITPIILAAHCQKYEVVHMLLMKGARIERPHDYFCKCGDCMEKQRHDSFSHSRSRINAYKGLASPA
YLSLSSEDPVLTALELSNELAKLANIEKEFKNDYRKLSMQCKDFVVGVLDLCRDSEEVEAILNGDLESAEPLEVH
RHKASLSRVKLAIKYEVKKFVAHPNCQQQLLTIWYENLSGLREQTIAIKCLVVLVVALGLPFLAIGYWIAPCSRL
GKILRSPFMKFVAHAASFIIFLGLLVFNASDRFEGITTLPNITVTDYPKQIFRVKTTQFTWTEMLIMVWVLGMMW
SECKELWLEGPREYILQLWNVLDFGMLSIFIAAFTARFLAFLQATKAQQYVDSYVQESDLSEVTLPPEIQYFTYA
RDKWLPSDPQIISEGLYAIAVVLSFSRIAYILPANESFGPLQISLGRTVKDIFKFMVLFIMVFFAFMIGMFILYS
YYLGAKVNAAFTTVEESFKTLFWSIFGLSEVTSVVLKYDHKFIENIGYVLYGIYNVTMVVVLLNMLIAMINSSYQ
EIEDDSDVEWKFARSKLWLSYFDDGKTLPPPFSLVPSPKSFVYFIMRIVNFPKCRRRRLQKDIEMGMGNSKSRLN
LFTQSNSRVFESHSFNSILNQPTRYQQIMKRLIKRYVLKAQVDKENDEVNEGELKEIKQDISSLRYELLEDKSQA
TEELAILIHKLSEKLNPSMLRCE

### 2256/2682 FIGURE 2049A

GGCACGAGCAGAAGCAACAATAATTGTGAAAAAATACTTCAGCAGTT<u>ATG</u>GACTCATCTGTCATTCAAAGGAAAAA AGTAGCTGTCATTGGTGGTGGCTTGGTTGGCTCATTACAAGCATGCTTTCTTGCAAAGAGGAATTTCCAGATTGA TGTATATGAAGCTAGGGAAGATACTCGAGTGGCTACCTTCACACGTGGAAGAAGCATTAACTTAGCCCTTTCTCA TAGAGGACGACAAGCCTTGAAAGCTGTTGGCCTGGAAGATCAGATTGTATCCCAAGGTATTCCCATGAGAGCAAG CAGAGAAAATCTAAACAAGGATCTATTGACTGCTGCTGAGAAATACCCCAATGTGAAAAATGCACTTTAACCACAG GCTGTTGAAATGTAATCCAGAGGAAGGAATGATCACAGTGCTTGGATCTGACAAAGTTCCCAAAGATGTCACTTG TGACCTCATTGTAGGATGTGATGGAGCCTATTCAACTGTCAGATCTCACCTGATGAAGAAACCTCGCTTTGATTA CAGTCAGCAGTACATTCCTCATGGGTACATGGAGTTGACTATTCCACCTAAGAACGGAGATTATGCCATGGAACC TAATTATCTGCATATTTGGCCTAGAAATACCTTTATGATGATTGCACTTCCTAACATGAACAAATCATTCACATG TACTTTGTTCATGCCCTTTGAAGAGTTTGAAAAACTTCTAACCAGTAATGATGTGGTAGATTTCTTCCAGAAATA GATATCTGTAAAGTGCTCTTCATTTCACTTTAAATCTCACTGTGTACTGCTGGGAGATGCAGCTCATGCTATAGT GCCGTTTTTTGGGCAAGGAATGAATGCGGGCTTTGAAGACTGCTTGGTATTTGATGAGTTAATGGATAAATTCAG TAACGACCTTAGTTTGTGTCTTCCTGTGTTCTCAAGATTGAGAATCCCAGATGATCACGCGATTTCAGACCTATC CATGTACAATTACATAGAGATGCGAGCACATGTCAACTCAAGCTGGTTCATTTTTCAGAAGAACATGGAGAGATT TCTTCATGCGATTATGCCATCGACCTTTATCCCTCTCTATACAATGGTCACTTTTTCCAGAATAAGATACCATGA GGCTGTGCAGCGTTGGCATTGGCAAAAAAAGGTGATAAACAAAGGACTCTTTTTCTTGGGATCACTGATAGCCAT CAGCAGTACCTACCTATATACACTACATGTCACCACGATCTTTCCTCTGCTTGAGAAGACCATGGAACTGGAT AGCTCACTTCCGGAATACAACATGTTTCCCCGCAAAGGCCGTGGACTCCCTAGAACAAATTTCCAATCTCATTAG CAGG**TGA**TAGAAAGGTTTTGTGGTAGCAAATGCATGATTTCTCTGTGACCAAAATTAAGCATGAAAAAAATGTTT CCATTGCCATATTTGATTCACTAGTGGAAGATAGTGTTCTGCTTATAATTAAACTGAATGTAGAGTATCTCTGTA AGGTTGAGTCATTCTAACTATAAAAGTGCAATGACTAAGATCCTTCACTTCTCTGAAAGTAAGGCCCTAGATGCC TCAGGGAAGACAGTAATCATGCCTTTTCTTTAAAAGACACAATAGGACTCGCAACAGCATTGACTCAACACCTAG GACTAAAAATCACAACTTAACTAGCATGTTAACTGCACTTTTCATTACGTGAATGGAACTTACCTAACCACAGGG CTCAGACTTACTAGATAAAACCAGAAATGGAAATAAGGAATTCAGGGGAGTTCCAGAGACTTACAAAATGAACTC ATTTAGAGATCAGGTCTCACTCTGTTGACCAGGCTGGAGTGCAGTGGTGAGATCTGGGTTCACTGCAACCTCTGC CTCCTGGGCTCAAGCAATCCTCCCACTTCAGCCTCCCAAATAGCTGGGGCTACCATGGTATTTTTCAGTAGAGAC CGGGTCTTGCCATGCTGCCCAGGCCAGTCTCAAACTCCTGGCCTCATGTGATCTGCCCACCTCAGCCTCCCAAAG TACAGGGATTAGAGTTGTGAGCCACCGCTGCCAGCCCAGAGTTACCCTCTAAAGATAAGAAAAAGGCTATTAATA TCATACTAAGTGAAGGACAGGAAAGGGTTTTATTCATAAATTAAATGTCTACATGTGCCAGAATGGAAAGGAAAC AAGGGGAGACACTTTTATAGAAATACAAAGCCATTACTTTATTCAATTTCAGACCCTCAGAAGCAATTTACTAA TTTATTCTTCGACTACATACTGCAGCAGAACCAGCAATACACTTGATTTTTAAAAGCACATTTAGTGAAATGTTT AACACTAGAGTCATATAAGAAATAAAAATTGGGCAATAAAATAAAATGATTCAGTGTTTCTTTTCTATATTGTCA TATATGTAATATATGTGGGAAATACAGGGGAATGAGCAAATCTCAAAGAGCTGGCGTCTTAGAACTCCCTGGC TTATATAGCATCGACAAAGAACAGTAAATTTTTAGAGAAACAACAAAACAAAGAAAAAAGAGCTTTGAGTCTGTAG GGGCAGCAATTTGGGGGAAGCAAATATATGGGAGTTTGCCTTGTAGATTCCTCTGGTGGTGGTCTCCAGGCTGAC AAGGATTCAAAGTTGTCTCTGAAACTCCTCTTTGTCATACTGCACATATAAAACGTCTTTTGTTTCCAACAAGAG GATTTCTTTTTCATTCTAGAATTATCTCCTTGATAACTTGATCAGATATAGGACATGACACTGAATAGAGTCCAA CAGTACAAAAAAATTCAGTATGTTCTAGCTACTTCACACATGTGTACGCGACAGTTATTTTTACAGTAAGGTAT TTTCGAGAAAATGCATTACGTGTTTTGGAAAATAGAGTAATTTAAAAAATATATTTGAAATGAAAATCTCCAAC ACATTAGAAGATGATGTTAGATGCCCATCGTGTGCCACAAGTGGTTTTTTCATTATGTAAAGCACCCGTTGA

### 2257/2682 FIGURE 2049B

ATTAAAAGAATTTGTTTTGTTCAACCTCTTCCTGAGGCCCAAGAGCATATGGGCAATTCGGATTTCCTGCTGGA CCACAAGGTTCTGTTGATATTACATAGAAACGGGTATTCCAGACACTTCTTATGATGAAAGTCCAAAAGTGGCAT CCAATTTAAGGCCCCATCTTCGTTGCCATTCTTCATTCCTACAAAGGACGAACTTGGATTACATCAACTTTGGA CCCATTGGTTTTGTCGCTGTCGTCAACTGACAGTGATTCACCACTGGTGATGATAAAAATGATGGAAGAAGAGTT GAAAGTCACTTTTTCTTTGGCCTGTCCCCATCTTTCTGTGACATCACAATGGGTCTGATCTGCATTTCACTTCC AGCTGCTGGTAGGTCTTTAGCAGGCCTCTGGCACCTCAGCAGTCGGAGGCACAGAAGCTGCAAAAAGGGATCTTCG AAACTGGGCAGAGAAAAATAAAGTGGAATATTAAGTAAAAGTTGGGCACTAATCTGGATTAACATTCGAGGAAA TCAGTTGAGCTGATTTAAGTTGTTTTTTTTTTTTAGCAGGTGTGGATGTGGGGTTATGTGGTCATGCTCAGATC **AATACCTTGTAATCCTCCAAGCTTCAATCTGCACACACTTTCTATGAGGGCAGGTACAACTATTAAGAGATTTTG AACATTAAGTTAGTCCACAAATATTCAGTGGGCATCTACTAGGTGACAGCCACTGTGCTATAATTAGAGACTTTT** TACTATAAGCATCAAAAACAGATAAGGCTCTTCCTGGCAGAGTTTACAGCCTGGTGTACTTGCTAATGTCTCTTT TAATGTCATCAACAAACATTGTTCTTCTCCGTGTCCTGGGTACAACATCGAATAATATTTCTTGGCCTCCTTTCC GCTTCTCCTCTCTGCTGTTCCTCTACAAGAACCTGGGAGGCCAACGCCTAAAGATCATAATATCACAATGGAA GGAACCTAGATTCCTAAATGACTGCATAGGACAGATCCCATCTCCTCCACCCAATACATTATTAGACTGAACTGT GACCTGAAATGAGCAATAAACTCTGTATTAATTCACTGAAATGTTGGGGTTGCTTGTTATAGTAGTCGGTCCATC 

### 2258/2682 FIGURE 2050

MDSSVIQRKKVAVIGGGLVGSLQACFLAKRNFQIDVYEAREDTRVATFTRGRSINLALSHRGRQALKAVGLEDQI VSQGIPMRARMIHSLSGKKSAIPYGTKSQYILSVSRENLNKDLLTAAEKYPNVKMHFNHRLLKCNPEEGMITVLG SDKVPKDVTCDLIVGCDGAYSTVRSHLMKKPRFDYSQQYIPHGYMELTIPPKNGDYAMEPNYLHIWPRNTFMMIA LPNMNKSFTCTLFMPFEEFEKLLTSNDVVDFFQKYFPDAIPLIGEKLLVQDFFLLPAQPMISVKCSSFHFKSHCV LLGDAAHAIVPFFGQGMNAGFEDCLVFDELMDKFSNDLSLCLPVFSRLRIPDDHAISDLSMYNYIEMRAHVNSSW FIFQKNMERFLHAIMPSTFIPLYTMVTFSRIRYHEAVQRWHWQKKVINKGLFFLGSLIAISSTYLLIHYMSPRSF LCLRRPWNWIAHFRNTTCFPAKAVDSLEQISNLISR

### 2259/2682 FIGURE 2051

GACGCTGCGGGGCGGCCGACAGACTGCGGGACGGACGGTGGACGCTGGGACGCGTTTGTAGCTCCGGCCCCGCC
GTTCCGACCCCCGCCGCCGCCGCCATCGCCGCATCACCACTTTTTGATTTGGGCTCTACTCCGGGGTCTTCGTGGCCTTCTGG
GCCTGCGCGCTGGCCGTGGAGTCTGCTACACCATTTTTGATTTGGGCTTCCGCTTTGATGTGGCATGGTTCCTG
ACGGAGACTTCGCCCTTCATGTGGTCCAACCTGGGCATTGGCCTACCTCTTCTCTGTGGTTGGGCAGCC
TGGGGCATCTATATTACCGGCTCCTCCATCATTGGTGGAGGAGTGAAGGCCCCCAGGATCAAGACCAAGAACCTG
GTCAGCATCATCTTCTGTGAGGCTGTGGCCATCTACGGCATCATCATGGCAATTGTCATTAGCAACATGGCTGAG
CCTTTCAGTGCCACAGACCCCAAGGCCATCGGCCATCGGAACTACCATGCAGGCTACTCCATGTTTGGGGCTGGC
CTCACCGTAGGCCTGTCTAACCTCTTCTGTGGAGTCTGCGTGGGCATCGTGGGCAGTGGGGCTGCCCTGGCCGAT
GCTCAGAACCCCAGCCTCTTTGTAAAGATTCTCATCGTGGAGATCTTTGGCAGCGCCATTGGCCTCTTTTGGGGTC
ATCGTCGCAATTCTTCAGACCTCCAGAGTGAAGATGGGTGACTTACATGTTTGGCAGCCCATTTCAGAGGCTTGCCTCAC
TTTTATTTATTGCTGGTTTTCCTGGGACAGCTGGAGCTGTGTCCCTTAGCCTTTCAGAGGCTTGGTGTTCAGGGC
CCTCCCTGCACTCCCCTCTTTGCTGCGTGTTGATTTGGAGGCACTGCAGCCGAGTCCTCAGTGCGGGGAG
CAGGCTGCTGCTGCTGCTGCAGCTGCGCACCTGCACCCCCCCACCCTCAACCCATCTTCCTAGTG
TTTGTGAAATAAACTTGGTATTTGTCTGGGTC

# 2260/2682 FIGURE 2052

MTGLALLYSGVFVAFWACALAVGVCYTIFDLGFRFDVAWFLTETSPFMWSNLGIGLAISLSVVGAAWGIYITGSS IIGGGVKAPRIKTKNLVSIIFCEAVAIYGIIMAIVISNMAEPFSATDPKAIGHRNYHAGYSMFGAGLTVGLSNLF CGVCVGIVGSGAALADAQNPSLFVKILIVEIFGSAIGLFGVIVAILQTSRVKMGD

### 2261/2682 FIGURE 2053

## 2262/2682 FIGURE 2054

MCFPKVLSDDMKKLKARMHQAIERFYDKMQNAESGRGQVMSSLAELEDDFKEGYLETVAAYYEEQHPELTPLLEK ERDGLRCRGNRSPVPDVEDPATEEPGESFCDKVMRWFQAMLQRLQTWWHGVLAWVKEKVVALVHAVQALWKQFQS FCCSLSELFMSSFQSYGAPRGDKEELTPQKCSEPQSSK

### 2263/2682 FIGURE 2055A

AGAGTTATATTGTGCCATTTATGGAAAAACTCTCCCCACTGCTCTTGGCTTTGACAGTAGGAATCAGGTTATATA TGGTCTCTCGGTTTGAAGATATTTGTCATTAAAAACCAGAACAAGGGCTCTGAGATAGGGTCCTTTCCTGACCTA CTCTGGTAAAGTCTTTATCCTCAGGATGCAAGGATACCACCCTCTTCCTGTGGAAAGTGTCGAATCACATGCAGA GCTCTAAGTCTTTCAGTTACTTTGGAGTGCAGAACCATTTCAGACATC CTCGGGCTTCTGCGCGCCCAGCCTTCCCCTGTCCGCCAGCTTGCAAGTGTGTCTTCCGGGACGCCGCGCAGTGC TCGGGGGGGGCGCGCGCTCCGCGCTGGGCCTGCCCACCAACCTCACGCACATCCTGCTCTTCGGAATG GGCCGCGGCGTCCTGCAGAGCCAGAGCTTCAGCGGCATGACCGTCCTGCAGCGCCTCATGATCTCCGACAGCCAC ATTTCCGCCGTTGCCCCCGGCACCTTCAGTGACCTGATAAAACTGAAAACCCTGAGGCTGTCGCGCAACAACATC ACGCATCTTCCAGGTGCGCTGCTGGATAAGATGGTGCTCCTGGAGCAGTTGTTTTTGGACCACAATGCGCTAAGG CTTCCTGCCAGTCTCTTCACGAATCTGGAGAACCTGAAGTTGTTGGATTTATCGGGAAACAACCTGACCCACCTG  $\tt CCCAAGGGGTTGCTTGGAGCACAGGCTAAGCTCGAGAGACTTCTGCTCCACTCGAACCGCCTTGTGTCTCTGGAT.$ TCGGGGCTGTTGAACAGCCTGGGCGCCCTGACGGAGCTGCAGTTCCACCGAAATCACATCCGTTCCATCGCACCC GGGGCCTTCGACCGGCTCCCAAACCTCAGTTCTTTGACGCTTTCGAGAAACCACCTTGCGTTTCTCCCCTCTGCG CTCTTTCTTCATTCGCACAATCTGACTCTGTTGACTCTGTTCGAGAACCCGCTGGCAGAGCTCCCGGGGGTGCTC TTCGGGGAGATGGGGGGCCTGCAGGAGCTGTGGCTGAACCGCACCCAGCTGCGCACCCTGCCCGCCGCCGCCTTC CGCAACCTGAGCCGCCTGCGGTACTTAGGGGTGACTCTGAGCCCGCGGCTGAGCGCGCTTCCGCAGGGCGCCTTC CAGGGCCTTGGCGAGCTCCAGGTGCTCGCCCTGCACTCCAACGGCCTGACCGCCCTCCCCGACGGCTTGCTGCGC GGCCTCGGCAAGCTGCGCCAGGTGTCCCTGCGCCGCAACAGGCTGCGCGCCCTGCCCCGTGCCCTCTTCCGCAAT CCCCGGCTGACGGAGGTCCTGTTGGGGCACAACTCCTGGCGCTGCGACTGTGGCCTGGGGCCCTTCCTGGGGTGG CTGCGGCAGCACCTAGGCCTCGTGGGCGGGAAGAGCCCCCACGGTGCGCAGGCCCTGGGGCGCACGCCGGCCTG CCGCTCTGGGCCCTGCCGGGGGTGACGCGGAGTGCCCGGGGCCCCGGGGGCCCGCCTCCCCGCCCCGCTGCGGAC AGCTCCTCGGAAGCCCCTGTCCACCCAGCCTTGGCTCCCAACAGCTCAGAACCCTGGGTGTGGGCCCAGCCGGTG ACCACGGGCAAAGGTCAAGATCATAGTCCGTTCTGGGGGTTTTATTTTCTGCTTTTAGCTGTTCAGGCCATGATC TAAACCAATGGGAAAATCTTCTAATTACTTAGAACCTGACCAGATGTGGCTCGGAGGGGAATCCAGACCCGCTGC GCCGGGGGGCTGGACTGTTGGACCCATCCTTGCCCCGCTGTGCCTGGCTTGGCCTCTGGTGGAGAGAGGGACC TCTTCAGTGTCTACTGAGTAAGGGGACAGCTCCAGGCCGGGGCTGTCTCCTGCACAGAGTAAGCCGGTAAATGTT TGTGAAATCAATGCGTGGATAAAGGAACACATGCCATCCAAGTGATGATGGCTTTTCCTGGAGGGAAAGGATAGG CTGTTGCTCTATCTAATTTTTTGTTTTTTGGACAGTCTAGCTCTGTGGCCCAGGCTGGCGTGCAGTGGGC CGTCTCAGTTCACTGCAGCCTCCGCCCTCCAGGTTCAAGTGATTCTCATGCCTCAGCGTTCTGAGTAGCTGGGAT TAGAGGCGTGTGCCACTACACCCGGCTAATTTTTGTACTTTTTAAAGTAGAGACGGGCTTTGCCATATTGGCCTG GCTGATCTCAAACTCCTGGTCTTGAACTCCTGGCCACAAGTGATCTGCCCGCCTTAGCCTCCCAAAGTGCTGGGA TTACAGGCGCAAGCCACTACACCTGCCCTCTTCATCGAATTTTATTTGAGAAGTAGAGCTCTTGCCATTTTTTCC CTTGCTCCATTTTTCTCACTTTATGTCTCTCTGACCTATGGGCTACTTGGGAGACCACTGGACTCCATTCATGCA AGTGTAGGTCCAGCGTGTTTCCTGAGCCTCCTGTGAGTTTCCACTTGCTTTACATCCATGCAACATGTCATTTTG AAACTGGATTGCATTTCCTGGAACTCTGCCACCTCATTTCACAAGCATTTATGGAGCAGTTAACATGTGA CTGGTATTCATGATATAATGATAAGCTTGATTCTAGTTCAGCTGCTGTCACAGTCTCATTTGTTCTTCCAACTG AAAGCCGTAAAACCTTTGTTGCTTTAATTGAATGTCTGTGCTTATGAGAGGCAGTGGTTAAAACATTTTCTGGCG AGTTGACAACTGTGGGTTCAAATCCCAGCTCTACCACTTACTAACTGCATGGGACTTTGGGTAAGACACCTGCTT ACATTCTCTAAGCCTTGGTTTCCTGAACCTTAAAACAGGATAACATAGTACCTGCTTCATAGAGTTTTGTGAGAA TTACTAAAGATGAGCAATTATTATTGGCATCATGATTTCTAAAGAAGAGCTTTGAGTTGGTATTTTTCTCTGTGT

### 2264/2682 FIGURE 2055B

GCCCTGGGTGGCCAGGCTCTGTGCTCACAGTCCAGAGCAATGGATCCTCCAACACCACCAGGTGGATGTGGAGCA  ${\tt GGAGACCTGGATCGTGCATTTGTTTCTGGGTTCTGCAGTTGGGAGTTGGTTTCTGGGTTCTCCATTGGTCTACT}$ TGTCTAGTCCCATACCAGACTCACGGTCTCCATTATTGGAGCTTTAATAATTTTTTGGTATAGGGTCATCTCCCA  $\verb| CCTTGTTTTCTTCTATTCTTGGTTCTTTGCAATTCTATGAATATTTCAGGGTCAGCATGTCAACTCCATTGAAA| \\$ ATCACAGGTCAGGAGTTTGAGAACAGCTGGCCAAGATGGTGAAACCCCGTCTCTACTAAAAATACAAAAATTAGC TGGGTGCGGTGGCAGGTGCCTGTAGTCCCAGCTACTTGGGACACCGAGGCAGGAGAATCACTTGAACCCGGGAGG  $\tt CGGAGGTTGCAGTGAGCCGAGATCGTGCCACTGCACTCTAGCCTGGGCGACAGAGCGAGACTCCATCTCAAAAAA$ AAAGAAAAGAAATTGCAGTAAATTTAAAACTAATTTGGGGAAGAATCTGTATTTTTACAATACCTAGTGTTCT TGCCAGTAAGCATGGTTCATCTTCCCATTTATTTACGTCATTTTAAATCTTTCAGTGATGTTTTAGAATTTTTTT TTTATTCCTAGGTATCCTTCTTTTTTGATTTGTCATTGCTATTGTAGATGGCATCTTTTTAAAAAGTTATAT CATAATTATCTTATGTCTAGTAATAATTCTGATAATTTGCTTCTTCCTATTAAAACCTTACACCCATTATTGATT TATTTTCTGTTTTAAAATATCTTCCTGCACTGGCTAAAACCTCCACTATAATGTTGAGCAGAACAGTGAGGCAT CCTTAGAACTATCTTGGTTGCAAAGGGTAGGTCTCTAATGTTTCATCAATAAATGTGATGTTTCTAGTCTGAGTT TGCTAAGTATATTTTAAAATAATCAGTAAAGTTAGATTTTATCCATTTTTATCTTAACTATTGAGATGCTCATAT CATTTTCTTCTTCAATGTGTTAAAATGGTGA

### 2265/2682 FIGURE 2056

MLRGTLLCAVLGLLRAQPFPCPPACKCVFRDAAQCSGGDVARISALGLPTNLTHILLFGMGRGVLQSQSFSGMTV LQRLMISDSHISAVAPGTFSDLIKLKTLRLSRNKITHLPGALLDKMVLLEQLFLDHNALRGIDQNMFQKLVNLQE LALNQNQLDFLPASLFTNLENLKLLDLSGNNLTHLPKGLLGAQAKLERLLLHSNRLVSLDSGLLNSLGALTELQF HRNHIRSIAPGAFDRLPNLSSLTLSRNHLAFLPSALFLHSHNLTLLTLFENPLAELPGVLFGEMGGLQELWLNRT QLRTLPAAAFRNLSRLRYLGVTLSPRLSALPQGAFQGLGELQVLALHSNGLTALPDGLLRGLGKLRQVSLRRNRL RALPRALFRNLSSLESVQLDHNQLETLPGDVFGALPRLTEVLLGHNSWRCDCGLGPFLGWLRQHLGLVGGEEPPR CAGPGAHAGLPLWALPGGDAECPGPRGPPPRPAADSSSEAPVHPALAPNSSEPWVWAQPVTTGKGQDHSPFWGFY FLLLAVQAMITVIIVFAMIKIGQLFRKLIRERALG

#### 2266/2682 FIGURE 2057

## 2267/2682 FIGURE 2058

MSDGDYDYLIKFLALGDSGVGKTSVLYQYTDGKFNSKFITTVGIDFRPKRVVYRASGPDGPVGRGQRIHLQLWDT AGQERFRSLTTAFFRDAMGFLLLFDLTNEQSFLNVRNWISQLQMHAYCENPDIVLCGNKSDLEDQRVVKEEEAIA LAEKYGIPYFETSAANGTNISQAIEMLLDLIMKRMERCVDKSWIPEGVVRSNGHASTDQLSEEKEKGACGC

#### 2268/2682 FIGURE 2059

 ${\tt GCGCGGGGCCGCCGCGGGGCTCAGGGCAGACC} {\tt ATG} {\tt CGCCGCCAAGTCCGCTGCCCGCCGGCTGGCTATGCG}$ TGCTGGCAGGCGCCCTCGCCTGGGCCCTTGGGCCGGCGGCGGCCAGGCCAGGCTGCAGGAGGAGTGTGACT ATGTGCAGATGATCGAGGTGCAGCACAAGCAGTGCCTGGAGGAGGCCCAGCTGGAGAATGAGACAATAGGCTGCA GCAAGATGTGGGACAACCTCACCTGGCCAGCCACCCCTCGGGGCCAGGTAGTTGTCTTGGCCTGTCCCCTCA TCTTCAAGCTCTTCTCCTCCATTCAAGGCCGCAATGTAAGCCGCAGCTGCACCGACGAAGGCTGGACGCACCTGG AGCCTGGCCCGTACCCCATTGCCTGTGGTTTGGATGACAAGGCAGCGAGTTTGGATGAGCAGCAGACCATGTTCT ACGGTTCTGTGAAGACCGGCTACACCATTGGCTACGGCCTGTCCCTCGCCACCCTTCTGGTCGCCACAGCTATCC TGAGCCTGTTCAGGAAGCTCCACTGCACGCGGAACTACATCCACATGCACCTCTTCATATCCTTCATCCTGAGGG CTGCCGCTGTCTTCATCAAAGACTTGGCCCTCTTCGACAGCGGGGAGTCGGACCAGTGCTCCGAGGGCTCGGTGG ACCTGTACACCCTGCTTGCCGTCTCCTTCTTCTCTGAGCGGAAGTACTTCTGGGGGGTACATACTCATCGGCTGGG GGGTACCCAGCACATTCACCATGGTGTGGACCATCGCCAGGATCCATTTTGAGGATTATGGGTGCTGGGACACCA TCAACTCCTCACTGTGGTGGATCATAAAGGGCCCCATCCTCACCTCCATCTTGGTAAACTTCATCCTGTTTATTT GCATCATCCGAATCCTGCTTCAGAAACTGCGGCCCCCAGATATCAGGAAGAGTGACAGCAGTCCATACTCAAGGC TAGCCAGGTCCACACTCCTGCTGATCCCCCTGTTTGGAGTACACTACATCATGTTCGCCTTCTTTCCGGACAATT TTAAGCCTGAAGTGAAGATGGTCTTTGAGCTCGTCGTGGGGTCTTTCCAGGGTTTTGTGGTGGCTATCCTCTACT GCTTCCTCAATGGTGAGGTGCAGGCGGAGCTGAGGCGGAAGTGGCGGCGCTGCCACCTGCAGGGCGTCCTGGGCT GGAACCCCAAATACCGGCACCCGTCGGGAGGCAGCAACGGCGCCACGTGCAGCACGCAGGTTTCCATGCTGACCC  ${\tt GCGTCAGCCCAGGTGCCCGCCGCTCCTCCAGCTTCCAAGCCGAAGTCTCCCTGGTC} {\color{red}{\textbf{TGA}}} {\tt CCACCAGGATCCCAGG}$ GGCCCAAGGCGGCCCCTCCCGCCCTTCCCACTCACCCCGGCAGACGCCGGGGACAGAGGCCTGCCCGGGCGCGG  $\verb|CCAGCCCCGGCCCTGGGCCCCCGGCCCCCTGGTCTCTGGTCCGGACACTCCTAGAGAACGCAGC| \\$ TCAGTCATTAGACTCCTCCTAAAGGCCCCCTACGCCAATCAAGGGCAAAAAGTCTACATACTTTCATCCTGAC TCTGCCCCTGCTGGCTCTTCTGCCCAATTGGAGGAAAGCAACCGGTGGATCCTCAAACAACACTGGTGTGACCT GAGGGCAGAAAGGTTCTGCCCGGGGAAGGTCACCAGCACCAACACCACGGTAGTGCCTGAAATTTCACCATTGCT GTCAAGTTCCTTTGGGTTAAGCATTACCACTCAGGCATTTGACTGAAGATGCAGCTCACTACCCTATTCTCTCTT CCCCACCGAAGTGGACTGGCCCCTGGGTCAGTCTGGTGGGAGGACGGTGCAACCCAAGGACTGAGGACTCTGAA GCCTCTGGGAAATGAGAAGGCAGCCACCAGCGAATGCTAGGTCTCGGACTAAGCCTACCTGCTCTCCAAGTCTCA GTGGCTTCATCTGTCAAGTGGGATCTGTCACACCAGCCATACTTATCTCTCTGTGCTGTGGAAGCAACAGGAATC AAGAGCTGCCCTCCTTGTCCACCCACCTATGTGCCAACTGTTGTAACTAGGCTCAGAGATGTGCACCCATGGGCT TACCCACACCTCTGCCAGAAGATCCCCTCAGGACTGCAACAGGCTTGTGCAACAATAAATGTTGGCTTGGA

## 2269/2682 FIGURE 2060

MRPPSPLPARWLCVLAGALAWALGPAGGQAARLQEECDYVQMIEVQHKQCLEEAQLENETIGCSKMWDNLTCWPA
TPRGQVVVLACPLIFKLFSSIQGRNVSRSCTDEGWTHLEPGPYPIACGLDDKAASLDEQQTMFYGSVKTGYTIGY
GLSLATLLVATAILSLFRKLHCTRNYIHMHLFISFILRAAAVFIKDLALFDSGESDQCSEGSVGCKAAMVFFQYC
VMANFFWLLVEGLYLYTLLAVSFFSERKYFWGYILIGWGVPSTFTMVWTIARIHFEDYGCWDTINSSLWWIIKGP
ILTSILVNFILFICIIRILLQKLRPPDIRKSDSSPYSRLARSTLLLIPLFGVHYIMFAFFPDNFKPEVKMVFELV
VGSFQGFVVAILYCFLNGEVQAELRRKWRRWHLQGVLGWNPKYRHPSGGSNGATCSTQVSMLTRVSPGARRSSSF
QAEVSLV

#### 2270/2682 FIGURE 2061

TAACCCGCCGCCTCCCCGCTCCCCGGCTGCAGGCGGCGTGCAGGACCAGCGGCGGCCGTGCAGGCGGAGGACTTC GGCGCGCTCCTCCTGGGTGTGACCCCGGGCGCGCCGCCGCGGCGACGATGAGGGCGCGGCCGCAGGTCTGCGAG  $\tt CGCAGCAACCTGGAGCTCATGCACACGGTGGTGCACGCCGCCGGGAGGTCATGAAGGCCTGTCGCCGGGCCTTT$ GAGTCGGCCTTCGTGTATGCGCTGTCGGCCGCCGCCATCAGCCACGCCATCGCCCGGGCCTGCACCTCCGGCGAC CTGCCCGGCTGCTCCTGCGGCCCCGTCCCAGGTGAGCCACCCGGGCCCGGGAACCGCTGGGGAGGATGTGCGGAC GCCAATAAACTGATGCGTCTACACAACAGTGAAGTGGGGAGACAGGCTCTGCGCGCCTCTCTGGAAATGAAGTGT AAGTGCCATGGGGTGTCTGGCTCCTGCTCCATCCGCACCTGCTGGAAGGGGCTGCAGGAGCTGCAGGATGTGGCT GCTGACCTCAAGACCCGATACCTGTCGGCCACCAAGGTAGTGCACCGACCCATGGGCACCCGCAAGCACCTGGTG  $\tt CCCAAGGACCTGGATATCCGGCCTGTGAAGGACTCGGAACTCGTCTATCTGCAGAGCTCACCTGACTTCTGCATG$ AAGAATGAGAAGGTGGGCTCCCACGGGACACAAGACAGGCAGTGCAACAAGACATCCAACGGAAGCGACGCTGC GACCTTATGTGCTGCGGGCGTGGCTACAACCCCTACACAGACCGCGTGGTCGAGCGGTGCCACTGTAAGTACCAC  $\tt TGGTGCTGCTACGTCACCTGCCGCAGGTGTGAGCGTACCGTGGAGCGCTATGTCTGCAAG\underline{TGA}GGCCCTGCCCTC$ CGCCCCACGCAGGAGCGAGGACTCTGCTCAAGGACCCTCAGCAACTGGGGCCCAGGGGCCTGGAGACACTCCATGG AGCTCTGCTTGTGAATTCCAGATGCCAGGCATGGGAGGCGGCTTGTGCTTTGCCTTCACTTGGAAGCCACCAGGA ACAGAAGGTCTGGCCACCCTGGAAGGAGGGCAGGACATCAAAGGAAACCGACAAGATTAAAAATAACTTGGCAGC TTTCAGGGCCACAGAGACCAGCCTCCGGGAAGGGGTCTGCCCGCCTTCTTCAGAATGTTCTGCGGGACCCCCTGG  $\tt CCCACCTGGGGTCTGAGCCTGCTGGGCCCACCACATGGAATCACTAGCTTGGGTTGTAAATGTTTTCTTTTGTT$ TTTTGCTTTTCTTCCTTTGGGATGTGGAAGCTACAGAAATATTTATAAAACATAGCTTTTTCTTTGGGGTGGCA AGCTTTTTAAGCAGCTGTATGAAATAAATGCTGAGTGAGCCCCAGCCCCCTGCAGTTCCCGGCCTCGTCAAG TGAACTCGGCAGACCCTGGGGCTGGCAGAGGGAGCTCTCCAGTTTCCAGGCA

## 2271/2682 FIGURE 2062

MRARPQVCEALLFALALQTGVCYGIKWLALSKTPSALALNQTQHCKQLEGLVSAQVQLCRSNLELMHTVVHAARE VMKACRRAFADMRWNCSSIELAPNYLLDLERGTRESAFVYALSAAAISHAIARACTSGDLPGCSCGPVPGEPPGP GNRWGGCADNLSYGLLMGAKFSDAPMKVKKTGSQANKLMRLHNSEVGRQALRASLEMKCKCHGVSGSCSIRTCWK GLQELQDVAADLKTRYLSATKVVHRPMGTRKHLVPKDLDIRPVKDSELVYLQSSPDFCMKNEKVGSHGTQDRQCN KTSNGSDSCDLMCCGRGYNPYTDRVVERCHCKYHWCCYVTCRRCERTVERYVCK

#### 2272/2682 FIGURE 2063

GGCACGAGGGGCGGCGGAGCCGACTCGTCGCGGCCGAGGCGCACGCGGTCCGCCGCCGGCGTCAGTCTGGGATTGG  $\tt CCGGCCCGCGACTTCCTCCGCCCCCTGCCAATCGCCGGGGACGACTTCCGTGGGTTTTTCCGGCTCTCCCGCGTC$ GCTAAGGAGCGACGGCTGTCGGCCAGACCCCGAGTTCTCGGTGCGCTCAGCGGCCGCCGACGCTAGGAGGCCGC GCTCCGCCCCGCTACCATGAGGCCCCGGAAAGCCTTCCTGCTCCTGCTCTTGGGGGCTGGTGCAGCTGCTGG CCGTGGCGGTGCCGAGGGCCCGGACGAGGATTCTTCTAACAGAGAAAATGCCATTGAGGATGAAGAGGAGGAGGA AGGAGGAAGATGATGATGAGGAAGAAGACGACTTGGAAGTTAAGGAAGAAAATGGAGTCTTGGTCCTAAATGATG CAAACTTTGATAATTTTGTGGCTGACAAAGACACAGTGCTGCTGGAGTTTTATGCTCCATGGTGTGGACATTGCA AGCAGTTTGCTCCGGAATATGAAAAAATTGCCAACATATTAAAGGATAAAGATCCTCCCATTCCTGTTGCCAAGA TCGATGCAACCTCAGCGTCTGTGCTGGCCAGCAGGTTTGATGTGAGTGGCTACCCCACCATCAAGATCCTTAAGA AGGGGCAGGCTGTAGACTACGAGGGCTCCAGAACCCAGGAAGAAATTGTTGCCAAGGTCAGAGAAGTCTCCCAGC CCGACTGGACGCCTCCACCAGAAGTCACGCTTGTGTTGACCAAAGAGAACTTTGATGAAGTTGTGAATGATGAAGAGT ATATCATTCTGGTGGAGTTTTATGCCCCATGGTGTGGACACTGCAAGAAACTTGCCCCCGAGTATGAGAAGGCCG CCAAGGAGCTCAGCAAGCGTTCTCCTCCAATTCCCCTGGCAAAGGTCGACGCCACCGCAGAAACAGACCTGGCCA AGGTCCAGGAGTTCCTGAAGGATGGAGACGATGTCATCATCATCGGGGTCTTTAAGGGGGAGAGTGACCCAGCCT ACCAGCAATACCAGGATGCCGCTAACAACCTGAGAGAAGATTACAAATTTCACCACACTTTCAGCACAGAAATAG CAAAGTTCTTGAAAGTCTCCCAGGGGCAGTTGGTTGTAATGCAGCCTGAGAAATTCCAGTCCAAGTATGAGCCCC GGAGCCACATGATGGACGTCCAGGGCTCCACCCAGGACTCGGCCATCAAGGACTTCGTGCTGAAGTACGCCCTGC  $\verb|CCCTGGTTGGCCACCGCAAGGTGTCAAACGATGCTAAGCGCTACACCAGGCGCCCCCTGGTGGTCGTCTACTACA| \\$ GTGTGGACTTCAGCTTTGATTACAGAGCTGCAACTCAGTTTTGGCGGAGCAAAGTCCTAGAGGTGGCCAAGGACT  ${\tt TCCCTGAGTACACCTTTGCCATTGCGGACGAAGAGGACTATGCTGGGGAGGTGAAGGACCTGGGGCTCAGCGAGA}$ GTGGGGAGGATGTCAATGCCGCCATCCTGGACGAGAGTGGGAAGAAGTTCGCCATGGAGCCAGAGGAGTTTGACT CCAAGAACAACAAGGGACCCGTCAAGGTCGTGGTGGGAAAGACCTTTGACTCCATTGTGATGGACCCCAAGAAGG ACGTCCTCATCGAGTTCTACGCACCATGGTGCGGGCACTGCAAGCAGCTAGAGCCCGTGTACAACAGCCTGGCCA AGAAGTACAAGGGCCAAAAGGGCCTGGTCATCGCCAAGATGGACGCCACTGCCAACGACGTCCCCAGCGACCGCT ATAAGGTGGAGGGCTTCCCCACCATCTACTTCGCCCCCAGTGGGGACAAAAAGAACCCAGTTAAATTTGAGGGTG GAGACAGAGATCTGGAGCATTTGAGCAAGTTTATAGAAGAACATGCCACAAAACTGAGCAGGACCAAGGAAGAGAG TTCATGCTCTGAATACCGAATAACCATGAATGACTGAATAGTTTAGTCCAGATTTTTACAGAGGATACATCTATT TTTATCATTATTTGGGGTTTGAAAAATTTTTTTTTACACCTTCTAATTTCTTTATTTCTCAAAGCAGATAATTCT TCTGTGTGAAAATGTTTTCTTTTTTTAATTTAAGGTTTAAAATTCCTTTGCCAAATCATGTTGATTTTGCTCTTT GCTTTTTCGTTGTCTGAGAAATTGTTGGCGTAGATTTGGCTTCTGGTATGTGTTTCTGATTGCTTCCTGTTGAGC ACAAAGTGAGAGCTGCCACTGAGCAGCCCTGCCAGGGGTGCTGTTTCAGGCTGGCCATCGCCAGGCGGCCTCCCT GCAAACCAAGGGCTGGGGGCAAAGGGGCATGATCCAGGGTCCCCCAGGGTGGGCTCAGCTCCAGGGAGAGGCCAC CCACGTGGCAGCCCCACCTCTTGAGAGCCCCCAGTGCCGGAGCAGAAAGGACCCTGGACCCAGAGGCAGATACTG AAAAA

#### 2273/2682 FIGURE 2064

MRPRKAFLLLLLIGLVQLLAVAGAEGPDEDSSNRENAIEDEEEEEEDDDEEEDDLEVKEENGVLVLNDANFDNF
VADKDTVLLEFYAPWCGHCKQFAPEYEKIANILKDKDPPIPVAKIDATSASVLASRFDVSGYPTIKILKKGQAVD
YEGSRTQEEIVAKVREVSQPDWTPPPEVTLVLTKENFDEVVNDADIILVEFYAPWCGHCKKLAPEYEKAAKELSK
RSPPIPLAKVDATAETDLAKRFDVSGYPTLKIFRKGRPYDYNGPREKYGIVDYMIEQSGPPSKEILTLKQVQEFL
KDGDDVIIIGVFKGESDPAYQQYQDAANNLREDYKFHHTFSTEIAKFLKVSQGQLVVMQPEKFQSKYEPRSHMMD
VQGSTQDSAIKDFVLKYALPLVGHRKVSNDAKRYTRRPLVVVYYSVDFSFDYRAATQFWRSKVLEVAKDFPEYTF
AIADEEDYAGEVKDLGLSESGEDVNAAILDESGKKFAMEPEEFDSDTLREFVTAFKKGKLKPVIKSQPVPKNNKG
PVKVVVGKTFDSIVMDPKKDVLIEFYAPWCGHCKQLEPVYNSLAKKYKGQKGLVIAKMDATANDVPSDRYKVEGF
PTIYFAPSGDKKNPVKFEGGDRDLEHLSKFIEEHATKLSRTKEEL

## 2274/2682 FIGURE 2065

 ${\tt GGAATTCCCTGATATACACCTGGACCACCA} \underline{{\tt ATG}}{\tt GATATACAAATGGCAAACAATTTTACTCCGCCCTCTGCA}$ ACTCCTCAGGGAAATGACTGTGACCTCTATGCACATCACAGCACGGCCAGGATAGTAATGCCTCTGCATTACAGC TCTACCACCCTCTATTCAACAAATTTGGTGATTTCTGATATACTTTTTACCACCGCTTTGCCTACACGAATAGCC TACTATGCAATGGGCTTTGACTGGAGAATCGGAGATGCCTTGTGTAGGATAACTGCGCTAGTGTTTTACATCAAC ACATATGCAGGTGTGAACTTTATGACCTGCCTGAGTATTGACCGCTTCATTGCTGTGGTGCACCCTCTACGCTAC **AACAAGATAAAAAGGATTGAACATGCAAAAGGCGTGTGCATATTTGTCTGGATTCTAGTATTTGCTCAGACACTC** ACTARATCTCTTCCCTGGATTCTGCTTGGGGCATGTTTCATAGGATATGTACTTCCACTTATAATCATTCTCATC AAAAAGGCTCTCAACACAATTATTCTTATTATTGTTGTGTTTTGTTCTCTGTTTCACACCTTACCATGTTGCAATT ATTCAACATATGATTAAGAAGCTTCGTTTCTCTAATTTCCTGGAATGTAGCCAAAGACATTCGTTCCAGATTTCT CTGCACTTTACAGTATGCCTGATGAACTTCAATTGCTGCATGGACCCTTTTATCTACTTCTTTGCATGTAAAGGG TATAAGAGAAAGGTTATGAGGATGCTGAAACGGCAAGTCAGTGTATCGATTTCTAGTGCTGTGAAGTCAGCCCCT GAAGAAAATTCACGTGAAATGACAGAAACGCAGATGATGATACATTCCAAGTCTTCAAATGGAAAG<u>TGA</u>AATGGA TTGTATTTTGGTTTATAGTGACGTAAACTGTATGACAAACTTTGCAGGACTTCCCTTATAAAGCAAAATAATTGT TCAGCTTCCAATTAGTATTCTTTTATATTTCTTTCATTGGGCACTTTCCCATCTCCAACTCGGAAGTAAGCCCAA TCTTGCCAACAAATGGCTAGAAAGGACTGAATAGATTATATTTGCCAGATGTTAATACTGTAACATACTTTTTA AATAACATATTCCTTAAATCCAAATTTCTCTCAATGTTAGATTTAATTCCCTCAATAACACCAATGTTTTGTTTT GTTTCGTTCTGGGTCATAAAACTTTGTTAAGGAACTCTTTTGGAATAAAGAGCAGGATGCTGC

## 2275/2682 FIGURE 2066

MDIQMANNFTPPSATPQGNDCDLYAHHSTARIVMPLHYSLVFIIGLVGNLLALVVIVQNRKKINSTTLYSTNLVI SDILFTTALPTRIAYYAMGFDWRIGDALCRITALVFYINTYAGVNFMTCLSIDRFIAVVHPLRYNKIKRIEHAKG VCIFVWILVFAQTLPLLINPMSKQEAERITCMEYPNFEETKSLPWILLGACFIGYVLPLIIILICYSQICCKLFR TAKQNPLTEKSGVNKKALNTIILIIVVFVLCFTPYHVAIIQHMIKKLRFSNFLECSQRHSFQISLHFTVCLMNFN CCMDPFIYFFACKGYKRKVMRMLKRQVSVSISSAVKSAPEENSREMTETQMMIHSKSSNGK

#### 2276/2682 FIGURE **2067**

GCGGAGCACAGTCCGCCGAGCACAAGCTCCAGCATCCCGTCAGGGGTTGCAGGTGTGTGGGAGGCTTGAAACTGT TACAATATGCCTTTCCTTGGACTCTTCTCTTTGCTGGTTCTGCAAAGTATGGCTACAGGGGCCACTTTCCCTGAG GAAGCCATTGCTGACTTGTCAGTGAATATGTATAATCGTCTTAGAGCCACTGGTGAAGATGAAAATATTCTCTTC TTTTTGCAAATGATGAAAAAATATTTTAATGCAGCAGTAAATCATGTGGACTTCAGTCAAAATGTAGCCGTGGCC AACTACATCAATAAGTGGGTGGAGAATAACACAAACAATCTGGTGAAAGATTTGGTATCCCCAAGGGATTTTGAT GCTGCCACTTATCTGGCCCTCATTAATGCTGTCTATTTCAAGGGGAACTGGAAGTCGCAGTTTAGGCCTGAAAAT ACTAGAACCTTTTCTTTCACTAAAGATGATGAAAGTGAAGTCCAAATTCCAATGATGTATCAGCAAGGAGAATTT TATTATGGGGAATTTAGTGATGGCTCCAATGAAGCTGGTGGTATCTACCAAGTCCTAGAAATACCATATGAAGGA GATGAAATAAGCATGATGCTGGTGCTGTCCAGACAGGAAGTTCCTCTTGCTACTCTGGAGCCATTAGTCAAAGCA CAGCTGGTTGAAGAATGGGCAAACTCTGTGAAGAAGCAAAAAGTAGAAGTATACCTGCCCAGGTTCACAGTGGAA CAGGAAATTGATTTAAAAGATGTTTTGAAGGCTCTTGGAATAACTGAAATTTTCATCAAAGATGCAAATTTGACA TCAGAAGCTGCTGCTCTCAGGAATGATTGCAATTAGTAGGATGGCTGTGCTGTATCCTCAAGTTATTGTCGAC CATCCATTTTTCTTTCTTATCAGAAACAGGAGAACTGGTACAATTCTATTCATGGGACGAGTCATGCATCCTGAA ACAATGAACACAGTGGACATGATTTCGAAGAACTT<u>TAAG</u>TTACTTTATTTGAATAACAAGGAAAACAGTAACTA AGCACATTATGTTTGCAACTGGTATATATTTAGGATTTGTGTTTTACAGTATATCTTAAGATAATATTTAAAATA GTTCCAGATAAAAACAATATATGTAAATTATAAGTAACTTGTCAAGGAATGTTATCAGTATTAAGCTAATGGTCC TGTTATGTCATTGTGTTGTGTGTTGTTTAAAATAAAAGTACCTATTGAACATGTG

## 2277/2682 FIGURE 2068

MAFLGLFSLLVLQSMATGATFPEEAIADLSVNMYNRLRATGEDENILFSPLSIALAMGMMELGAQGSTQKEIRHS
MGYDSLKNGEEFSFLKEFSNMVTAKESQYVMKIANSLFVQNGFHVNEEFLQMMKKYFNAAVNHVDFSQNVAVANY
INKWVENNTNNLVKDLVSPRDFDAATYLALINAVYFKGNWKSQFRPENTRTFSFTKDDESEVQIPMMYQQGEFYY
GEFSDGSNEAGGIYQVLEIPYEGDEISMMLVLSRQEVPLATLEPLVKAQLVEEWANSVKKQKVEVYLPRFTVEQE
IDLKDVLKALGITEIFIKDANLTGLSDNKEIFLSKAIHKSFLEVNEEGSEAAAVSGMIAISRMAVLYPQVIVDHP
FFFLIRNRRTGTILFMGRVMHPETMNTSGHDFEEL

#### 2278/2682 FIGURE 2069

CCCGCGGCTCTCGGCGGAGCCCCGCCGCCGCCGCCGCCATGCCCGAAGACCCCGGCACAGCATATATAGCAGTG ACGAGGATGATGAGGACTTTGAGATGTGTGACCATGACTATGATGGGCTGCTTCCCAAGTCTGGAAAGCGTCACT TGGGGAAAACAAGGTGGACCCGGGAAGAGAGATGAAAAACTGAAGAAGCTGGTGGAACAGAATGGAACAGATGACT GGAAAGTTATTGCCAATTATCTCCCGAATCGAACAGATGTGCAGTGCCAGCACCGATGGCAGAAAGTACTAAACC CTGAGCTCATCAAGGGTCCTTGGACCAAAGAAGAAGATCAGAGAGTGATAGAGCTTGTACAGAAATACGGTCCGA AACGTTGGTCTGTTATTGCCAAGCACTTAAAGGGGAGAATTGGAAAACAATGTAGGGAGAGGTGGCATAACCACT TGAATCCAGAAGTTAAGAAAACCTCCTGGACAGAAGAGGGAAGACAGAATTATTTACCAGGCACACAAGAGACTGG GGAACAGATGGGCAGAAATCGCAAAGCTACTGCCTGGACGAACTGATAATGCTATCAAGAACCACTGGAATTCTA GCTTCCAGAAGAACAGTCATTTGATGGGTTTTGCTCAGGCTCCGCCTACAGCTCAACTCCCTGCCACTGGCCAGC CCACTGTTAACAACGACTATTCCTATTACCACATTTCTGAAGCACAAAATGTCTCCAGTCATGTTCCATACCCTG ACCCTGAGÁAGGAAAAGCGAATAAAGGAATTAGAATTGCTCCTAATGTCAACCGAGAATGAGCTAAAAGGACAGC AGGTGCTACCAACACAGAACCACACATGCAGCTACCCCGGGTGGCACCACCACCACTTGCCGACCACACCAGAC CTCATGGAGACAGTGCACCTGTTTCCTGTTTGGGAGAACACCACTCCACTCCATCTCTGCCAGCGGATCCTGGCT CCCTACCTGAAGAAAGCGCCTCGCCAGCAAGGTGCATGATCGTCCACCAGGGCACCATTCTGGATAATGTTAAGA ACTTGGAAATGCCTTCTTTAACTTCCACCCCCTCATTGGTCACAAATTGACTGTTACAACACCATTTCATAGAG ACCAGACTGTGAAAACTCAAAAGGAAAATACTGTTTTTAGAACCCCAGCTATCAAAAGGTCAATCTTAGAAAGCT CTCCAAGAACTCCTACACCATTCAAACATGCACTTGCAGCTCAAGAAATTAAATACGGTCCCCTGAAGATGCTAC CTCAGACACCCTCTCATCTAGTAGAAGATCTGCAGGATGTGATCAAACAGGAATCTGATGAATCTGGATTTGTTG CTGAGTTTCAAGAAAATGGACCACCCTTACTGAAGAAAATCAAACAAGAGGTGGAATCTCCAACTGATAAATCAG GAAACTTCTTCTGCTCACACCACTGGGAAGGGGACAGTCTGAATACCCAACTGTTCACGCAGACCTCGCCTGTGC GAGATGCACCGAATATTCTTACAAGCTCCGTTTTAATGGCACCAGCATCAGAAGATGAAGACAATGTTCTCAAAG CATTTACAGTACCTAAAAACAGGTCCCTGGCGAGCCCCTTGCAGCCTTGTAGCAGTACCTGGGAACCTGCATCCT GTGGAAAGATGGAGGAGCAGATGACATCTTCCAGTCAAGCTCGTAAATACGTGAATGCATTCTCAGCCCGGACGC TGGTCATG<u>TGA</u>GACATTTCCAGAAAAGCATTATGGTTTTCAGAACAGTTCAAGTTGACTTGGGATATATCATTCC TCAACATGAAACTTTTCATGAATGGGAGAAGAACCTATTTTTGTTGTGGTACAACAGTTGAGAGCACGACCAAGT TTTATCTGGTATTTTAAAGGATCCAACAGATCAGTATTTTTTCCTGTGATGGGTTTTTTGAAATTTGACACATTA AAAGGTACTCCAGTATTTCACTTTTCTCGATCACTAAACATATGCATATATTTTTAAAAATCAGTAAAAGCATTA CTCTAAGTGTAGACTTAATACCATGTGACATTTAATCCAGATTGTAAATGCTCATTTATGGTTAATGACATTGAA TTTTATAAAAATTATATTTTTATTCAGTAATTTAATTTTGTAAATGCCAAATGAAAAACGTTTTTTGCTGCTAT ACATTTGAAAACTTGTTTGGGAGACTCTGCATTTTTTATTGTGGTTTTTTTGTTATTGTTGGTTTATACAAGCAT GCGTTGCACTTCTTTTTTGGGAGATGTGTTGTTCATGTTCTATGTTTTGTTTTTGTGTGTAGCCTGACTGTTTT ATAATTTGGGAGTTCTCGATTTGATCCGCATCCCCTGTGGTTTCTAAGTGTATGGTCTCAGAACTGTTGCATGGA TCCTGTGTTTGCAACTGGGGAGACAGAAACTGTGGTTGATAGCCAGTCACTGCCTTAAGAACATTTGATGCAAGA 

#### 2279/2682 FIGURE 2070

MARRPRHSIYSSDEDDEDFEMCDHDYDGLLPKSGKRHLGKTRWTREEDEKLKKLVEQNGTDDWKVIANYLPNRTD VQCQHRWQKVLNPELIKGPWTKEEDQRVIELVQKYGPKRWSVIAKHLKGRIGKQCRERWHNHLNPEVKKTSWTEE EDRIIYQAHKRLGNRWAEIAKLLPGRTDNAIKNHWNSTMRRKVEQEGYLQESSKASQPAVATSFQKNSHLMGFAQ APPTAQLPATGQPTVNNDYSYYHISEAQNVSSHVPYPVALHVNIVNVPQPAAAAIQRHYNDEDPEKEKRIKELEL LLMSTENELKGQQVLPTQNHTCSYPGWHSTTIADHTRPHGDSAPVSCLGEHHSTPSLPADPGSLPEESASPARCM IVHQGTILDNVKNLLEFAETLQFIDSFLNTSSNHENSDLEMPSLTSTPLIGHKLTVTTPFHRDQTVKTQKENTVF RTPAIKRSILESSPRTPTPFKHALAAQEIKYGPLKMLPQTPSHLVEDLQDVIKQESDESGFVAEFQENGPPLLKK IKQEVESPTDKSGNFFCSHHWEGDSLNTQLFTQTSPVRDAPNILTSSVLMAPASEDEDNVLKAFTVPKNRSLASP LQPCSSTWEPASCGKMEEQMTSSSQARKYVNAFSARTLVM

#### 2280/2682 FIGURE 2071A

ATTTACGCGTTGCTGAATCTCCTGTGGACAAACCACCAATAGGCCAGGACTGTCCTGTGGACAGACGGGGTGAGC CTCTTCTTGTGTCTGGAGATTCTGAAAAGATTTGATCACCAGGAGATTTTTCGGGACATTACCAAACCACTCATT TTAGTGGCTGCCTCCGGGTGATGATGGCTGTGTGAACGACTGCC<u>ATC</u>CCCACCGGAAGCTTGAGAGCGTGGGGA GCGGCATGTTGGACCATAGGGTGAGACCAGGTCCTGTCCCTCACAGCCCAGAGCCCGAGAGCCAGAGACATGGAGC TGCCCTTGGAGGGCTATGTGCCCGAGGGCCTGGAGCTGGCCCTGCGGCCAGAGAGCCCCGCGCCAGAGGAAC AGGAGTGCCACAACCACAGCCCCGATGGGGACTCCAGCTCTGACTACGTGAACAACACCTCTGAGGAGGAGGACT ATGACGAGGGCCTCCCTGAGGAGGAGGGGCATCACCTACTACATCCGCTACTGCCCTGAGGACGACAGCTACC TAGAGGGCATGGACTGCAACGGGGAGGAGTACCTGGCCCACAGTGCACACCCTGTGGACACTGATGAGTGCCAGG AGGCGGTGGAGGAGTGGACGGACTCGGCGGGCCCGCACCCCCACGGCCACGAGGCTGAAGGCAGCCAGGACTACC CAGACGGCCAACTGCCCATTCCGGAGGATGAGCCCTCCGTCCTTGAGGCCCATGACCAGGAAGAAGATGGTCACT ACTGTGCCAGCAAAGAGGGCTACCAGGACTACCCCGAGGAGGCCAACGGGAACACCGGCGCCTCCCCCTACC GCCTGAGGCGTGGGGATGGGGACCTGGAGGACCAGGAGGAGACATTGACCAGATCGTGGCAGAGATCAAGATGA GTCTGAGCATGACCAGCATCACCAGCGCCAGTGAGGCCAGCCCCGAGCATGGGCCTGAGCCAGGGCCTGAGGACT CTGTAGAGGCCTGCCCACCCATCAAGGCCAGCTGCAGCCCCAGCAGGCACGAGGCCCAAGTCGCTGAACC TCCTTCCCGAGGCCAAGCACCCCGGAGACCCCCAGAGAGGCTTCAAGCCCAAGACCAGGACCCCAGAAGAGAGGGC TGAAGTGGCCCCACGAGCAGGTTTGCAATGGTCTGGAGCAGCCAAGGAAGCAGCAGCGCTCTGATCTCAATGGAC CTGTTGACAATAACAACATTCCAGAGACAAAGAAGGTGGCATCATTTCCAAGTTTTGTGGCTGTTCCAGGGCCCT GCGAACCAGAAGACCTCATCGACGGGATCATCTTTGCTGCCAATTACCTGGGGTCCACCCAGCTGCTATCAGAAC GGAACCCTTCCAAAAACATCAGAATGATGCAAGCGCAGGAGGCCGTCAGCCGGGTCAAGAGGATGCAAAAGGCTG CTAAGATCAAGAAAAAAGCGAATTCTGAGGGGGATGCCCAGACGCTGACGGAAGTGGACCTCTTCATTTCCACCC AGAGGATCAAGGTTTTAAATGCAGACACGCAGGAAACCATGATGGACCACGCCTTGCGTACCATCTCCTACATCG CCGACATTGGGAACATTGTAGTGCTGATGGCCAGACGCCGCATGCCCCGGTCAGCCTCTCAGGACTGCATCGAGA CCACGCCCGGGGCCCAGGAAGGCAAGAAGCAGTATAAGATGATCTGCCATGTGTTCGAGTCGGAGGATGCCCAGC TEATCGCCCAGTCTATCGGCCAGGCCTTCAGCGTGGCCTACCAGGAGTTCCTGCGAGCCAATGGCATCAACCCCG AAGACTTGAGCCAGAAGGAATACAGCGACATCATCAACACCCAGGAGATGTACAACGACGACGTCATCCACTTCT CGGGCTGGGGCTCCATCCTGCCCACGGTGATCCTGGCCAACATGATGAATGGCGGCCCGGCTGCCCGCTCGGGGA AGCTGAGCATCGGGGACCAGATCATGTCCATCAATGGCACCAGCCTGGTGGGGCTGCCCCTCGCCACCTGCCAAG GCATCATCAAGGGCCTGAAGAACCAGACACAGGTGAAGCTCAACATTGTCAGCTGTCCCCCGGTCACCACGGTCC GGGGCATTGCTGAGCGAGGGGGCGTCCGTGTGGGCCACCGCATCATCGAGATCAACGGGCAGAGCGTGGTGGCCA TTTATCAAAGGAGAGTCACAGAACAAATGTTTGTTTGTAAAGCGTTCCAAGTATTTTGCCACGTTCTGGACTGTC TTCTCCCTGCACAAGCCAGGGTGTGTCTCGGTAGCTGTGCGTGGTGTGGAGTGTGTCTTTCCTCCCTGAAGCT TTTTGGCAGGCTTTTTCCAGACTCTAGGGTTTTCCAATGTGACTAATGACCACACCTGCCTCTCCCGTCGTCTC TTCTGGGCACCCTCCCACCCGGCTGCATACCCGGGCAGGGCTCCCACAGAGACAAGGAGGGCACAGGTGTCTGCC CCCTCTTTAAAATCGATCTACACATCCACGCACATGCGACCCCGAGGAAACGAAACCCACTCTAGAAAACGCG ACCTTGGCCGCACCTAAAGCAGCCAGCCGTGAGTGCAGACCCCTTGGCCAGCGTGGCCAGTGGCCCTGAGCAGT  ${\tt AGTGGCATGTGTAGATCAAGTCGGATCTAGTCCAGCTCGGTTCATTAGCGATCCATGTAATCTGACGTCATCT}$ TGTCTCGAAGTCTCTTTTTTTGGCCCAGGCCTTGAAGAATACACTGTGACTTAAGAAGCCTTACCACGCAGTAAC 

2281/2682 FIGURE 2071B

TCACTAATAAACCTGAAGTCGTGATGA

## 2282/2682 FIGURE 2072

MAHRKLESVGSGMLDHRVRPGPVPHSQEPESEDMELPLEGYVPEGLELAALRPESPAPEEQECHNHSPDGDSSSD YVNNTSEEEDYDEGLPEEEGITYYIRYCPEDDSYLEGMDCNGEEYLAHSAHPVDTDECQEAVEEWTDSAGPHPH GHEAEGSQDYPDRQLPIPEMSPPSLRPMTRKKMVTMCQQRGLPGLLPRGGQREHRRLPLPPEAGDGDLEDQEEDI DQIVAEIKMSLSMTSITSASEASPEHGPEPGPEDSVEACPPIKASCSPSRHEARPKSLNLLPEAKHPGDPQRGFK PKTRTPEERLKWPHEQVCNGLEQPRKQQRSDLNGPVDNNNIPETKKVASFPSFVAVPGPCEPEDLIDGIIFAANY LGSTQLLSERNPSKNIRMMQAQEAVSRVKRMQKAAKIKKKANSEGDAQTLTEVDLFISTQRIKVLNADTQETMMD HALRTISYIADIGNIVVLMARRRMPRSASQDCIETTPGAQEGKKQYKMICHVFESEDAQLIAQSIGQAFSVAYQE FLRANGINPEDLSQKEYSDIINTQEMYNDDLIHFSNSENCKELQLEKHKGEILGVVVVESGWGSILPTVILANMM NGCPAARSGKLSIGDQIMSINGTSLVGLPLATCQGIIKGLKNQTQVKLNIVSCPPVTTVLIKRPDLKYQLGFSVQ NGIICSLMRGGIAERGGVRVGHRIIEINGQSVVATAHEKIVQALSNSVGEIHMKTMPAAMFRLLTGQETPLYI

#### 2283/2682 FIGURE 2073

GAATTCCATTTTAAGTTATACAAAACTGATTACCATAAGTGCGGTCGACTGCTTTTATTTTTACGTTGTGTGT TGGAAAAATGCTAAAACATCAGTCTACAATTCTATATATTGTTATTAAAGATTAATCCAACCAGCAACCCAAGGA CATATAAGCGATTTCCACTATTGCATCAGAGCACTCGGCAGGAAAGGCCTAGCCACGGGGAACATTAGAAGCTAC AGAAGCATTGCAGAGAAGAGAAGATCCCCCGCGCGCTCCCGCCGTTCTAAGGAGAAGTGGGGGCCCCCCAGG  $\tt CTCGCGCGTGGAGCGAAGCAGC\underline{ATC} GGCAGTCGGTGCGCGCTGGCCGTGCTGCTGTGTCA$ GGTCTGGAGCTCTGGGGTGTTCGAACTGAAGCTGCAGGAGTTCGTCAACAAGAAGGGGGCTGCTGGGGAACCGCAA CTGCTGCCGCGGGGGCGGGGCCACCGCCGTGCGCCTGCCGGACCTTCTTCCGCGTGTGCCTCAAGCACTACCA GGCCAGCGTGTCCCCCGAGCCGCCCTGCACCTACGGCAGCGCCGTCACCCCCGTGCTGGGCGTCGACTCCTTCAG TCTGCCCGACGGCGGGGGCGCCGACTCCGCGTTCAGCAACCCCATCCGCTTCCCCTTCGGCTTCACCTGGCCGGG CACCTTCTCTGATTATTGAAGCTCTCCACACAGATTCTCCTGATGACCTCGCAACAGAAAACCCAGAAAAGACT CATCAGCCGCCTGGCCACCCAGAGGCACCTGACGGTGGGCGAGGAGTGGTCCCAGGACCTGCACAGCAGCGGCCG CACGGACCTCAAGTACTCCTACCGCTTCGTGTGTGACGAACACTACTACGGAGAGGGCTGCTCCGTTTTCTGCCG GCCTACTGCACAGAGCCGATCTGCCTGCCTGGATGTGATGAGCAGCATGGATTTTGTGACAAACCAGGGGAATG CAAGTGCAGAGTGGGCTGGCAGGGCCGGTACTGTGACGAGTGTATCCGCTATCCAGGCTGTCTCCATGGCACCTG CCAGCAGCCCTGGCAGTGCAACTGCCAGGAAGGCTGGGGGGGCCTTTTCTGCAACCAGGACCTGAACTACTGCAC ACACCATAAGCCCTGCAAGAATGGAGCCACCTGCACCAACACGGGCCAGGGGAGCTACACTTGCTCTTGCCGGCC CACGGATCTCGAGAACAGCTACTCCTGTACCTGCCCACCCGGCTTCTACGGCAAAATCTGTGAATTGAGTGCCAT GACCTGTGCGGACGGCCCTTGCTTTAACGGGGGTCGGTGCTCAGACAGCCCCGATGGAGGGTACAGCTGCCGCTG  $\tt CCCCGTGGGCTACTCCGGCTTCAACTGTGAGAAGAAAATTGACTACTGCAGCTCTTCACCCTGTTCTAATGGTGC$ CAAGTGTGTGGACCTCGGTGATGCCTACCTGTGCCGCTGCCAGGCCGGCTTCTCGGGGAGGCACTGTGACGACAA CGTGGACGACTGCGCCTCCCCGTGCGCCAACGGGGGCACCTGCCGGGATGGCGTGAACGACTTCTCCTGCAC GGCCACCTGCCACGAGAGGGGCCACGGCTATGTGTGCGAGTGTGCCCGAGGCTACGGGGGTCCCAACTGCCAGTT CCCCTGGGTGGCCGTGTGCGCCGGGTCATCCTTGTCCTCATGCTGCTGCTGGGCTGTGCCGCTGTGGTGGTCTG CGTCCGGCTGAGGCTGCAGAAGCACCGGCCCCCAGCCGACCCTGCCGGGGGGAGACCATGAACAACCT GGCCAACTGCCAGCGTGAGAAGGACATCTCAGTCAGCATCATCGGGGCCACGCAGATCAAGAACACCAACAAGAA GGCGGACTTCCACGGGGACCACAGCGCCGACAAGAATGGCTTCAAGGCCCGCTACCCAGCGGTGGACTATAACCT CGTGCAGGACCTCAAGGGTGACGACACCGCCGTCAGGGACGCGCACAGCAAGCGTGACACCAAGTGCCAGCCCCA CTCGGGCTGTTCAACTTCAAAAGACACCAAGTACCAGTCGGTGTACGTCATATCCGAGGAGAAGGATGAGTGCGT CATAGCAACTGAGGTGTAAAATGGAAGTGAGATGGCAAGACTCCCGTTTCTCTTAAAATAAGTAAAATTCCAAGG ATATATGCCCCAACGAATGCTGCTGAAGAGGGGGGGGGCCTCGTGGACTGCTGCTGAGAAACCGAGTTCAGACCG TAAGAAGCATGCACTGCCTGAGTGTATATTTTGGATTCTTATGAGCCAGTCTTTTCTTGAATTAGAAACACAAAC ACTGCCTTTATTGTCCTTTTTGATACGAAGATGTGCTTTTTCTAGATGGAAAAGATGTGTTATTTTTTGGATT TGTAAAAATATTTTTCATGATATCTGTAAAGCTTGAGTATTTTGTGATGTTCGTTTTTTATAATTTAAATTTTGG TATGAGGAATTC

## 2284/2682 FIGURE 2074

MGSRCALALAVLSALLCQVWSSGVFELKLQEFVNKKGLLGNRNCCRGGAGPPPCACRTFFRVCLKHYQASVSPEP PCTYGSAVTPVLGVDSFSLPDGGGADSAFSNPIRFPFGFTWPGTFSLIIEALHTDSPDDLATENPERLISRLATQ RHLTVGEEWSQDLHSSGRTDLKYSYRFVCDEHYYGEGCSVFCRPRDDAFGHFTCGERGEKVCNPGWKGPYCTEPI CLPGCDEQHGFCDKPGECKCRVGWQGRYCDECIRYPGCLHGTCQQPWQCNCQEGWGGLFCNQDLNYCTHHKPCKN GATCTNTGQGSYTCSCRPGYTGATCELGIDECDPSPCKNGGSCTDLENSYSCTCPPGFYGKICELSAMTCADGPC FNGGRCSDSPDGGYSCRCPVGYSGFNCEKKIDYCSSSPCSNGAKCVDLGDAYLCRCQAGFSGRHCDDNVDDCASS PCANGGTCRDGVNDFSCTCPPGYTGRNCSAPVSRCEHAPCHNGATCHERGHGYVCECARGYGGPNCQFLLPELPP GPAVVDLTEKLEGQGGFFPWVAVCAGVILVLMLLLGCAAVVVCVRLRLQKHRPPADPCRGETETMNNLANCQREK DISVSIIGATQIKNTNKKADFHGDHSADKNGFKARYPAVDYNLVQDLKGDDTAVRDAHSKRDTKCQPQGSSGEEK GTPTTLRGGEASERKRPDSGCSTSKDTKYQSVYVISEEKDECVIATEV

#### 2285/2682 FIGURE 2075

GTAACCGCTACTCCCGGACACCAGACCACCGCCTTCCGTACACAGGGGCCCGCATCCCACCCTCCCGGACCTAAG AGCCTGGGTCCCCTGTTTCCGGAGGTCCGCTTCCCGGCCCCCAGATTCTGGCATCCCAGCCCTCAGTGTCCAAGA CCCAGGCAGCCCGGGTCCCCGGGTCCAGGCGTCCGGGATCTGCGCCACCAGAACCTAGCCTCCTGCAG  ${\tt ACCTCCGCCATCTGGGGGCCATCCTCGGGGCCCAGGGCCCACGTCCCAGGGGAAACTCTCGTATTC}$ CCAGCTCCTAGGGCCAAGGAACCCGGGCGCTCCGAACTCCCAGCTTTCGGACATCTGGCACACGGGGCAGAGCAG AGAAGCTCAGCGCCCAGCCTGGGGAATTTAAACACTCCAGCTTCCAAGAGCCAAGGAACTTCAGTGCTGTGAACT CACAACTCTAAGGAGCCCTCCAAAGTTCCAGTCTCCAGGTGCTGTTACTCAACTCAGTCCTAGGAACGTCGGGTC ATCCTCCTCGAGACTCCAAGGGGCTCGCAGCGGCGGAGCCCAACCGCGAACGGGGCCTGGCGCTCCATCG AGGACCAAGGCGCGCAGCAGGCGGCTACTGCGGTTCCCGGGACCAGGTGCGCCGCTGCCTTCGAGCCAACCTGC TTGTGCTGCTGACAGTGGTGGCCGTGGTGGCCGTGGCGCTGGGACTGGGGGTGTCGGGGGCCGGGGTGCGC TGGCGTTGGGCCCGGAGCGCTTGAGCGCCTTCGTCTTCCCGGGCGAGCTGCTGCTGCTGCTGCTGCGGATGATCA CCTGGGCGCTGCTCTTTTTCCTGGTCACCACGCTGCTGGCGTCGGCGCTCGGAGTGGGCTTGGCGCTCTGC AGCCGGGCGCCCCCCCCCCCCATCAACGCCTCCGTGGGAGCCGCGGGCAGTGCCGAAAATGCCCCCAGCAAGG AGGTGCTCGATTCGTTCCTGGATCTTGCGAGAAATATCTTCCCTTCCAACCTGGTGTCAGCAGCCTTTCGCTCAT ACTCTACCACCTATGAAGAGAGAATATCACCGGAACCAGGGTGAAGGTGCCCGTGGGGCAGGAGGTGGAGGGGA TGAACATCCTGGGCTTGGTAGTGTTTGCCATCGTCTTTGGTGTGGCGCTGCGGAAGCTGGGGCCTGAAGGGGAGC TGCTTATCCGCTTCTTCAACTCCTTCAATGAGGCCACCATGGTTCTGGTCTCCTGGATCATGTGGTACGCCCCTG TGGGCATCATGTTCCTGGTGGCTGGCAAGATCGTGGAGATGGAGGATGTGGGTTTACTCTTTGCCCGCCTTGGCA AGTACATTCTGTGCTGCTGCTGGGTCACGCCATCCATGGGCTCCTGGTACTGCCCCTCATCTACTTCCTCTCA  $\verb|CCCGCAAAAACCCCTACCGCTTCCTGTGGGGCATCGTGACGCCGCTGGCCACTGCCTTTGGGACCTCTTCCAGTT|\\$  $\tt CCGCCACGCTGCCGCTGATGATGAGTGCGTGGAGGAGGAGTAATGGCGTGGCCAAGCACATCAGCCGTTTCATCC$ TGCCCATCGGCGCCACCGTCAACATGGACGGTGCCGCGCTCTTCCAGTGCGTGGCCGCAGTGTTCATTGCACAGC TCAGCCAGCAGTCCTTGGACTTCGTAAAGATCATCACCATCCTGGTCACGGCCACAGCGTCCAGCGTGGGGGCAG  $\tt CGGGCATCCCTGCTGGAGGTGTCCTCACTCTGGCCATCATCCTCGAAGCAGTCAACCTCCCGGTCGACCATATCT$ CCTTGATCCTGGCTGTGGACTGGCTAGTCGACCGGTCCTGTACCGTCCTCAATGTAGAAGGTGACGCTCTGGGGG CAGGACTCCTCCAAAATTATGTGGACCGTACGGAGTCGAGAAGCACAGAGCCTGAGTTGATACAAGTGAAGAGTG GGGGAGCCAGGGGCCCCAGCACCCTCCAGGACAGGAGATCTGGGATGCCTGGCTGCTGGAGTACATGTGTTCACA AGGGTTACTCCTCAAAACCCCCAGTTCTCACTCATGTCCCCAACTCAAGGCTAGAAAACAGCAAGATGGAGAAAT AATGTTCTGCTGCGTCCCCACCGTGACCTGCCTGGCCTCCCCTGTCTCAGGGAGCAGGTCACAGGTCACCATGGG GAATTCTAGCCCCCACTGGGGGGATGTTACAACACCATGCTGGTTATTTTGGCGGCTGTAGTTGTGGGGGGGATGT GTGTGTGCACGTGTGTGTGTGTGTGTGTGTGTGTGTGTTCTGTGACCTCCTGTCCCCATGGTACGTC CCACCCTGTCCCCAGATCCCCTATTCCCTCCACAATAACAGAAACACTCCCAGGGACTCTGGGGAGAGGCTGAGG AAAAA

## 2286/2682 FIGURE 2076

MVADPPRDSKGLAAAEPTANGGLALASIEDQGAAAGGYCGSRDQVRRCLRANLLVLLTVVAVVAGVALGLGVSGA
GGALALGPERLSAFVFPGELLLRLIRMIILPLVVCSLIGGAASLDPGALGRLGAWALLFFLVTTLLASALGVGLA
LALQPGAASAAINASVGAAGSAENAPSKEVLDSFLDLARNIFPSNLVSAAFRSYSTTYEERNITGTRVKVPVGQE
VEGMNILGLVVFAIVFGVALRKLGPEGELLIRFFNSFNEATMVLVSWIMWYAPVGIMFLVAGKIVEMEDVGLLFA
RLGKYILCCLLGHAIHGLLVLPLIYFLFTRKNPYRFLWGIVTPLATAFGTSSSSATLPLMMKCVEENNGVAKHIS
RFILPIGATVNMDGAALFQCVAAVFIAQLSQQSLDFVKIITILVTATASSVGAAGIPAGGVLTLAIILEAVNLPV
DHISLILAVDWLVDRSCTVLNVEGDALGAGLLQNYVDRTESRSTEPELIQVKSELPLDPLPVPTEEGNPLLKHYR
GPAGDATVASEKESVM

#### 2287/2682 FIGURE 2077

CAGGCCAGGACTCCACAAGGCTGGTCCCCTGCCCTGGAGCAACTTAAACAGGCCCTCTGGCCAGCCTGGAACCCT GAG<u>ATG</u>GCCTCCAGCTCAGGCAGTCCTCGCCCGGCCCCTGATGAGAATGAGTTTCCCTTTGGGTGCCCTCCC ACCGTCTGCCAGGACCCAAAGGAGCCCAGGGCTCTCTGCTGTGCAGGCTGTCTCTCTGAGAACCCGAGGAATGGC GAGGATCAGATCTGCCCCAAATGCAGAGGGGAAGACCTCCAGTCTATAAGCCCAGGAAGCCGTCTTCGAACTCAG GAGAAGGCTCACCCCGAGGTGGCTGAGGCTGGAATTGGGTGCCCCTTTGCAGGTGTCGGCTGCTCCTTCAAGGGA AGCCCACAGTCTGTGCAAGAGCATGAGGTCACCTCCCAGACCTCCCACCTAAACCTGCTGTTGGGGGTTCATGAAA CAGTGGAAGGCCCGGCTGGGCCTGGAGTCTGGGCCCATGGCCCTGGAGCAGAACCTGTCAGACCTGCAG CTGCAGGCAGCCGTGGAAGTGGCGGGGGACCTGGAGGTCGATTGCTACCGGGCACCCTGCTCCGAGAGCCAGGAG GAGCTGGCCCTGCAGCACTTCATGAAGGAGAAGCTTCTGGCTGAGCTGGAGGGGAAGCTGCGTGTTTTGAGAAC ATTGTTGCTGTCCTCAACAAGGAGGTGGAGGCCTCCCACCTGGCCCTGGCCACCTCTATCCACCAGAGCCAGCTG GACCGTGAGCGCATCCTGAGCTTGGAGCAGAGGGTGGTGGAGCTTCAGCAGACCCTGGCCCAGAAAGACCAGGCC CTGGGCAAGCTGGAGCAGAGCTTGCGCCTCATGGAGGAGGCCTCCTTCGATGGCACTTTCCTGTGGAAGATCACC AATGTCACCAGGCGGTGCCATGAGTCGGCCTGTGGCAGGACCGTCAGCCTCTTCTCCCCAGCCTTCTACACTGCC AAGTATGGCTACAAGTTGTGCCTGCGGCTGTACCTGAATGGAGATGGCACTGGAAAGAGAACCCATCTGTCGCTC TTCATCGTGATCATGAGAGGGGAGTATGATGCGCTGCTGCCGTGGCCTTTCCGGAACAAGGTCACCTTCATGCTG CTGGACCAGAACAACCGTGAGCACGCCATTGACGCCTTCCGGCCTGACCTAAGCTCAGCGTCCTTCCAGAGGCCC TACGTGAAGGACGACAATGTTCCTCAAGTGCATTGTGGAGACCAGCACT**TAC**GGTGGGCGGGGCTCCTGAGGG AGCTCCAACTCAGAAGGGAGCTAGCCAGAGGACTGTGATGCCCTTGCCCTTGGCACCCAAGACCTCAGGGCACAAA GATGGGTGAAGGCTGGCATGATCCAAGCAAGACTGAGGGGTCGACTTCGGGCTGGCCATCTGGTTAGGATGGCAG GACGTGGGCTGGGCCCACAAAGGCAAAGGGTCCAGAAGGAGACAGGCAGAGCTGCTCCCCTCTGCACGGACCATG CGACACTGGGAGGCCAGTGAGCCACTCCGGCCCCGAATGTTGAGGTGGACTCTCACCAAATGAGAAGAAAATGGA ACCAGGCTTGGAACCGTAGGACCCAAGCAGAGAAGCTCTCGGGCTAGGAAGATCTCTGCAGGGCCGCCAGGGAGA CCTGGACACAGGCCTGCTCTCTTTTCTCCAGGGTCAGAAACAGGACCGGGTGGAAGGGATGGGGTGCCAGTTTG AATGCAGTCTGTCCAGGCTCGTCATTGGAGGTGAACAAGCCAAACCCAGAGGGCTCCACTAGGACTTCAAATTGGG GGTTGGATTTGAAGACTTTTAAGTTTCCTTCCAGCCCAGAAAGTCTCTCATTCTAGGCCTCCTGGCCCAGGTGAG CCCACTGGACTGACCTGGTCCACAGGGCACCTGCCACCCTGGGCCTGGCAGCTCAGCTTCCCCAACACGCAGGAG CACACCCAGCCCCACATCCTGTGCCTCCATCAGCTAAACACCACGTCACTTCATGCAGGTGAAACCCAGTCACT GTGAGCTCCCAGGTGCAGCCAGAGGCACCTCAAGAAGAAGAGGGGCATAAACTTTCCTCTTCCTGCCTAGAGGCC CCACCTTTGGTGCTTTCCAGAATCCCGTAACACCTGATTAACTGAGGCATCCACTTCTTTCAGCAGACTGATCAG GACCTCCAAGCCACTGAGCAATGTATAACCCCAAAGAAATAATTTTTAGAATCTCTTTCGAAGTTTTCCTAAAAA AAAAAAAAAA

## 2288/2682 FIGURE 2078

 $\label{thm:construction} $$ {\tt MASSSGSSPRPAPDENEFPFGCPPTVCQDPKEPRALCCAGCLSENPRNGEDQICPKCRGEDLQSISPGSRLRTQE} $$ {\tt KAHPEVAEAGIGCPFAGVGCSFKGSPQSVQEHEVTSQTSHLNLLLGFMKQWKARLGCGLESGPMALEQNLSDLQL} $$ {\tt QAAVEVAGDLEVDCYRAPCSESQEELALQHFMKEKLLAELEGKLRVFENIVAVLNKEVEASHLALATSIHQSQLD} $$ {\tt RERILSLEQRVVELQQTLAQKDQALGKLEQSLRLMEEASFDGTFLWKITNVTRRCHESACGRTVSLFSPAFYTAK} $$ {\tt YGYKLCLRLYLNGDGTGKRTHLSLFIVIMRGEYDALLPWPFRNKVTFMLLDQNNREHAIDAFRPDLSSASFQRPQ} $$ {\tt SETNVASGCPLFFPLSKLQSPKHAYVKDDTMFLKCIVETST} $$$ 

#### 2289/2682 FIGURE 2079

CCTGGCCCGGTCGCGGTCGCGGCTCTTTCCAGCTCCTGGCAGCCGGGCACCCGAAGGAACGGGTCGTGCAACGAC GCAGCTGGACCTGGCCCAGCCATGGACCGAAAAGTGGCCCGAGAATTCCGGCATAAGGTGGATTTTCTGATTGAA AATGATGCAGAGAAGGACTATCTCTATGATGTGCTGCGAATGTACCACCAGACCATGGACGTGGCCGTGCTCGTG GGAGACCTGAAGCTGGTCATCAATGAACCCAGCCGTCTGCCTCTGTTTGATGCCATTCGGCCGCTGATCCCACTG AAGCACCAGGTGGAATATGATCAGCTGACCCCCGGCGCTCCAGGAAGCTGAAGGAGGTGCGTCTGGACCGTCTG CACCCGAAGGCCTCGGCCTGAGTGTGCGTGGTGGCCTGGAGTTTGGCTGTGGGCTCTTCATCTCCCACCTCATC AAAGGCGGTCAGGCAGACAGCGTCGGGCTCCAGGTAGGGGACGAGATCGTCCGGATCAATGGATATTCCATCTCC TCCTGTACCCATGAGGAGGTCATCAACCTCATTCGAACCAAGAAAACTGTGTCCATCAAAGTGAGACACATCGGC CTGATCCCCGTGAAAAGCTCTCCTGATGAGCCCCTCACTTGGCAGTATGTGGATCAGTTTGTGTCGGAATCTGGG GGCGTGCGAGGCAGCCTGGGCTCCCCTGGAAATCGGGAAAACAAGGAAGAAGATCTTCATCAGCCTGGTAGGC TCCCGAGGCCTTGGCTGCAGCATTTCCAGCGGCCCCATCCAGAAGCCTGGCATCTTTATCAGCCATGTGAAACCT GGCTCCCTGTCTGCTGAGGTGGGATTGGAGATAGGGGACCAGATTGTCGAAGTCAATGGCGTCGACTTCTCTAAC CTGGATCACAAGGAGGCTGTAAATGTGCTGAAAAATAGCCGCAGCCTGACCATCTCCATTGTAGCTGCAGCTGGC CGGGAGCTGTTCATGACAGACCGGGAGCGGCTGGCAGAGGCGCGGCAGCGTGAGCTGCAGCGGCAGGAGCTTCTC ATGCAGAAGCGGCTGGCGATGGAGTCCAACAAGATCCTCCAGGAGCAGCAGGAGATGGAGCGGCAAAGGAGAAAA GAAATTGCCCAGAAGGCAGCAGAGAAAATGAGAGATACCGGAAGGAGATGGAACAGATTGTAGAGGAGGAAGAG AAGTTTAAGAAGCAATGGGAAGAAGACTGGGGCTCAAAGGAACAGCTACTCTTGCCTAAAACCATCACTGCTGAG GTACACCCAGTACCCCTTCGCAAGCCAAAGTATGATCAGGGAGTGGAACCTGAGCTCGAGCCCGCAGATGACCTG GATGGAGGCACGGAGGAGCAGGAGACCAGGATTTCCGGAAATATGAGGAAGGCTTTGACCCCTACTCTATGTTC ACCCCAGAGCAGATCATGGGGAAGGATGTCCGGCTCCTACGCATCAAGAAGGAGGGGATCCTTAGACCTGGCCCTG GAAGGCGGTGTGGACTCCCCCATTGGGAAGGTGGTCGTTTCTGCTGTATGAGCGGGGAGCTGCTGAGCGGCAT GGTGGCATTGTGAAAGGGGACGAGATCATGGCAATCAACGGCAAGATTGTGACAGACTACACCCTGGCTGAGGCT GACGCTGCCCTGCAGAAGGCCTGGAATCAGGGCGGGGACTGGATCGACCTTGTGGTTGCCGTCTGCCCCCCAAAG GAGTATGACGATGAGCTGACCTTCTTGCTGAAGTCCAAAAGGGGAAACCAAATTCACGCGTTAGGAAACAGTGAG CCTTGGGACCTGAATCTATCACCCAGGAATCTCAAACTCCCTTTGGCCCTGAACCAGGGCCAGATAAGGAACAGC  $\texttt{GACTCTCATTCCTTTGGCCCAG} \underline{\textbf{TGA}} \texttt{ATTTGGTCTCTCCCAGCTTTGGGGGACTCCTTCCTTGAACCCTAA}$ 

## 2290/2682 FIGURE 2080

MDRKVAREFRHKVDFLIENDAEKDYLYDVLRMYHQTMDVAVLVGDLKLVINEPSRLPLFDAIRPLIPLKHQVEYD QLTPRRSRKLKEVRLDRLHPEGLGLSVRGGLEFGCGLFISHLIKGGQADSVGLQVGDEIVRINGYSISSCTHEEV INLIRTKKTVSIKVRHIGLIPVKSSPDEPLTWQYVDQFVSESGGVRGSLGSPGNRENKEKKVFISLVGSRGLGCS ISSGPIQKPGIFISHVKPGSLSAEVGLEIGDQIVEVNGVDFSNLDHKEAVNVLKNSRSLTISIVAAAGRELFMTD RERLAEARQRELQRQELLMQKRLAMESNKILQEQQEMERQRRKEIAQKAAEENERYRKEMEQIVEEEEKFKKQWE EDWGSKEQLLLPKTITAEVHPVPLRKPKYDQGVEPELEPADDLDGGTEEQGEQDFRKYEEGFDPYSMFTPEQIMG KDVRLLRIKKEGSLDLALEGGVDSPIGKVVVSAVYERGAAERHGGIVKGDEIMAINGKIVTDYTLAEADAALQKA WNQGGDWIDLVVAVCPPKEYDDELTFLLKSKRGNQIHALGNSELRPHLVNTKPRTSLERGHMTHTRWHPWDLNLS PRNLKLPLALNQGQIRNSSGHFFEGQCGGKGAASRLGEDLKDPDSHSFPLAQ

#### 2291/2682 FIGURE 2081

CAGAGGGCTGCTGGCTAAGTCCCTCCCGCTCCCGGCTCTCGCCTCACTAGGAGCGGCTCTCGGTGCAGCGG GACAGGCGAAGCGCCTGCGCCCACGGAGCGCGCGACACTGCCCGGAAGGGACCGCCACCCTTGCCCCCTCAGC TGCCCACTCGTGATTTCCAGCGGCCTCCGCGCGCGCGCACGATGCCCTCGGCCACCAGCCACAGCGGGAGCGGCAGC GCTTCTCAGCACCCGCAACCGGCACCGGCGCTGTCCAGACCGAGGCCATGAAGCAGATTCTCGGGGTGATCGAC AAGAAACTTCGGAACCTGGAGAAAAAAGGGTAAGCTTGATGATTACCAGGAACGAATGAACAAAGGGGAAAGG CTTAATCAAGATCAGCTGGATGCCGTTTCTAAGTACCAGGAAGTCACAAATAATTTGGAGTTTGCAAAAGAATTA CAGAGGAGTTTCATGGCACTAAGTCAAGATATTCAGAAAACAATAAAGAAGACACCACGTCGGGAGCAGCTTATG AGAGAAGCTGAACAGAAACGTTTAAAAACTGTACTTGAGCTACAGTATGTTTTGGACAAATTGGGAGATGAT GAAGIGCGGACTGACCTGAAACAAGGTTTGAATGGAGTGCCAATATTGTCCGAAGAGGAGTTGTCATTGTTGGAT CACCTGTGGGACCTGCTGGAAGGGAAGGAAAAACCTGTATGTGGAACCACCTATAAAGTTCTAAAGGAAATTGTT GAGCGTGTTTTCAGTCAAACTACTTTGACAGCACCCACAACCACCAGAATGGGCTGTGTGAGGAAGAAGAGGGCA GCCTCAGCACCTGCAGTTGAAGACCAGGTACCTGAAGCTGAACCTGAGCCAGAAGAGTACACTGAGCAAAGT GAAGTTGAATCAACAGAGTATGTAAATAGACAGTTCATGGCAGAAACACAGTTCACCAGTGGTGAAAAGGAGCAG GTAGATGAGTGGACAGTTGAAACGGTTGAGGTGGTAAATTCACTCCAGCAGCAACCTCAGGCTGCATCCCCTTCA GTACCAGAGCCCCACTCTTTGACTCCAGTGGCTCAGGCAGATCCCCTTGTGAGAAGACAGCGAGTACAAGACCTT ATGGCACAAATGCAGGGTCCCTATAATTTCATACAGGATTCAATGCTGGATTTTGAAAATCAGACACTTGATCCT GCCATTGTATCTGCACAGCCTATGAATCCAACACAAAACATGGACATGCCCCAGCTGGTTTGCCCTCCAGTTCAT TCTGAATCTAGACTTGCTCAGCCTAATCAAGTTCCTGTACAACCAGAAGCGACACAGGTTCCTTTGGTATCATCC ACAAGTGAGGGGTACACAGCATCTCAACCCTTGTACCAGCCTTCTCATGCTACAGAGGAACGACCACAGAAGGAA TCTCAGCCTCAAGTATTTCAGGCTGGGACAAGCAAACCTTTACATAGCAGTGGAATCAATGTAAATGCAGCTCCA TTCCAATCCATGCAAACGGTGTTCAATATGAATGCCCCAGTTCCTCCTGTTAATGAACCAGAAACTTTAAAACAG CAAGAACAGCTTCAAACAGTGGTTGGCACTTACCATGGTTCCCCAGACCAGTCCCATCAAGTGACTGGTAACCAC CAGCAGCCTCCTCAGCAGAACACTGGATTTCCACGTAGCAATCAGCCCTATTACAATAGTCGTGGTGTGTCTCGT GGAGGCTCCCGTGGTGCTAGAGGCTTGATGAATGGATACCGGGGCCCTGCCAATGGATTCAGAGGAGGATATGAT GGTTACCGCCCTTCATTCTCTAACACTCCAAACAGTGGTTATACACAGTCTCAGTTCAGTGCTCCCCGGGATTAC TCTGGCTATCAACGGGATGGATATCAGCAGAATTTCAAGCGAGGCTCTGGGCAGAGTGGACCACGGGGAGCCCCA  $\tt CGAGGTCGTGGAGGGCCCCCAAGACCCAACAGAGGGATGCCGCAAATGAACACTCAGCAAGTGAAT\underline{TAA}TCTGAT$ TCACAGGATTATGTTTAATCGCCAAAAACACACTGGCCAGTGTACCATAATATGTTACCAGAAGAGTTATTATCT ATTTGTTCTCCCTTTCAGGAAACTTATTGTAAAGGGACTGTTTTCATCCCATAAAGACAGGACTACAATTGTCAG CTTTCTATTACCTGGATATGGAAGGAAACTATTTTTACTCTGCATGTTCTGTCCTAAGCGTCATCTTGAGCCTTG CACATGATACTCAGATTCCTCACCCTTGCTTAGGAGTAAAACAATATACTTTACAGGGTGATAATAATCTCCATA GTTATTTGAAGTGGCTTGAAAAAGGCAAGATTGACTTTTATGACATTGGATAAAATCTACAAATCAGCCCTCGAG TTATTCAATGATAACTGACAAACTAAATTATTTCCCTAGAAAGGAAGATGAAAGGAGTGGAGTGTGGTTTGGCAG AACAACTGCATTTCACAGCTTTTCCAGTTAAATTGGAGCACTGAACGTTCAGATGCATACCAAATTATGCATGGG TCCTAATCACACATATAAGGCTGGCTACCAGCTTTGACACAGCACTGTTCATCTGGCCAAACAACTGTGGTTAAA AACACATGTAAAATGCTTTTTAACAGCTGATACTGTATAAGACAAAGCCAAGATGCAAAATTAGGCTTTGATTGG CACTTTTTGAAAAATATGCAACAAATATGGGATGTAATCCGGATGGCCGCTTCTGTACTTAATGTGAAATATTTA ATGACATGTACATTGTCTGTCACTAATCCTTGGATTTTGCTGTATTGTCACCTAAATTGGTACAGGTACTGATGA AAAGATACCAAATGCCTGCTGCTACCACCCTTTTCAATTGCTATCTTTTGAAAGGCACCAGTATGTGTTTTAGAT TGATTTCCCTGTTTCAGGGAAATCACGGACAGTAGTTTCAGTTCTGATGGTATAAGCAAAACAAATAAAACGTTT ATAAAAGTTAAAAAAAAAAAAAAAAA

## 2292/2682 FIGURE 2082

MKQILGVIDKKLRNLEKKKGKLDDYQERMNKGERLNQDQLDAVSKYQEVTNNLEFAKELQRSFMALSQDIQKTIK
KTARREQLMREEAEQKRLKTVLELQYVLDKLGDDEVRTDLKQGLNGVPILSEEELSLLDEFYKLVDPERDMSLRL
NEQYEHASIHLWDLLEGKEKPVCGTTYKVLKEIVERVFQSNYFDSTHNHQNGLCEEEEAASAPAVEDQVPEAEPE
PAEEYTEQSEVESTEYVNRQFMAETQFTSGEKEQVDEWTVETVEVVNSLQQQPQAASPSVPEPHSLTPVAQADPL
VRRQRVQDLMAQMQGPYNFIQDSMLDFENQTLDPAIVSAQPMNPTQNMDMPQLVCPPVHSESRLAQPNQVPVQPE
ATQVPLVSSTSEGYTASQPLYQPSHATEQRPQKEPIDQIQATISLNTDQTTASSSLPAASQPQVFQAGTSKPLHS
SGINVNAAPFQSMQTVFNMNAPVPPVNEPETLKQQNQYQASYNQSFSSQPHQVEQTELQQEQLQTVVGTYHGSPD
QSHQVTGNHQQPPQQNTGFPRSNQPYYNSRGVSRGGSRGARGLMNGYRGPANGFRGGYDGYRPSFSNTPNSGYTQ
SQFSAPRDYSGYQRDGYQQNFKRGSGQSGPRGAPRGRGGPPRPNRGMPQMNTQQVN

#### 2293/2682 FIGURE 2083

CCAGCCCAGCCCAGCGCGCTCACAGGTGGGGTCCAAGAGCAGTTTGGAGCAACCCGGCGCTACGGAGAGGG GTGGACGGCTCTGCACGGGCCTCCTGTCTCCCGCTCGGGCAGAGGGACTCGGGGGGACCTCGCTCCTTGGCCGAG AGAACCTGAACTCGGGCGGAGAAACGCGCCCAGGCGGGCAAGGGGACCAGAGAAAGCCGGGGCTGGAAGTCACT GTCGCTCGCCACTGTCTGGAGCGCACGGAGCGCAGAGGCCCGGCAGCCGCGCGTGCCCTCCCGGGGACCGAGCCA GTGATGCAGGATCGCTGAGCGGAGATCCGCGCCGAGAAGTCTCTCGGGGCCGGGGCTGAGACGCCCTTCGAC ACCGCTGCCAAGACCCCGATTCCGGCGACTCTTGCGGGGGAACCGAGGGGGCCCAAGGCTGCCCCAAGCTCAGGACTT GGGCGAGTCTAAGACGATGGTTTCTTAAGCACGGACCCGCGTTCCCCTTCCCGCCCCTCGACTGGAGGCAGGGA TCCTGCGCGGGGCCCCCGGGATTCCGTTTCCCCGCGGAGCCCCGGCCGCTGCCTCCCGGGACAGTTCGCACGGCC ACAGGGGCGCACGGGGTGTGGCCTCCGTCCAGCGCGCTGGCCCGCGGGGGGATGCTCTGGCACCTGTCGGGGT CCAGGCCTAGCATGGCCGGCGTTGCCCGACGTCGCCTCCGGCTAGGATG CCCCTCCGGGCCCGGCCAGTGCCCTCTCCACCTCGGCCGAGCCGCTGTCCCGCAGCATCTTCCGGAAGTTCTTGCTGATGCTCTGCTCCCTGCTCACG TCCCTTTACGTCTTCTACTGCCTGGCCGAGCGCTGCCAGACCCTGTCCGGCCCCGTCGTGGGGCTGTCCGGCCGC GGCGAGGAGGCGGGGCCCCTGGTGGCGGCGTCCTGGCCGGAGGCCCGAGGGAGCTGGCGGTGTGGCCGGCGGCG GAGGCGCCTGGGAAGAAGAGTCCCCTGGCCTGTCAGGGGGGTCCGGGCGCTCCGGGGCCCGGAAGCACCGTGGCC GTGAAGAAGGCCGCACGCGGCCCTGCTGGAGTTCCTGCGCGTGCACCCCGACGTGCGCCCGTGGGCCCCGAG CCCCACTTCTTCGACCGCAGCTACGACAAGGGCCTCGCCTGGTACCGGGACCTGATGCCCAGAACCCTGGACGGG CAGATCACCATGGAGAAGACGCCCAGTTACTTCGTCACGCGGGAGGCCCCCGCGCGCATCTCGGCCATGTCCAAG GACACCAAGCTCATCGTGGTGGTGCGGGACCCGGTGACCAGGGCCATCTCGGACTACACGCAGACGCTGTCCAAG CGGCCCGACATCCCCACCTTCGAGAGCTTGACGTTCAAAAACAGGACAGCGGGCCTCATCGACACGTCGTGGAGC GCCATCCAGATCGGCATCTACGCCAAGCACCTGGAGCACTGGCTGCGCCACTTCCCCATCCGCCAGATGCTCTTC GTGAGCGGCGAGCGGCTCATCAGCGACCCGGCCGGGGAGCTGGGCCGCGTGCAAGACTTCCTGGGCCTCAAGAGG  $\tt CGGCCCCATTGCCTGGGCAAGACCAAGGGCAGGACCCATCCTGAGATCGACCGCGAGGTGCTGCGCAGGCTGCGCCGCGAGGTGCGCAGGCTGCGCCGCGAGGTGCGCAGGCTGCAGGCTGCAGGCTGCAGGCTGCGCAGGCTGCGCAGGCTGCAGGCTGCAGGCCAGGCTGCAGGCCAGGCTGCAGGCTGCAGGCCAGGCTGCAGGCTGCAGGCAGGCCAGGCCAGGCCAGGCCAGGCCAGGCCAGGCCAGGCCAGGCCAGGCCAGGCCAGGCCAGGCAGGCCAGGCCAGGCCAGGCCAGGCCAGGCCAGGCCAGGCCAGGCCAGGCCAGGCCAGGCCAGGCAGGCCAGGCCAGGCCAGGCCAGGCCAGGCCAGGCCAGGCCAGGCCAGGCCAGGCCAGGCCAGGCAGGCCAGGCCAGGCCAGGCCAGGCCAGGCCAGGCCAGGCCAGGCCAGGCCAGGCCAGGCCAGGCAGGCCAGGCCAGGCCAGGCCAGGCCAGGCCAGGCCAGGCCAGGCCAGGCCAGGCCAGGCCAGGCAGGCCAGGCCAGGCCAGGCCAGGCCAGGCCAGGCCAGGCCAGGCCAGGCCAGGCCAGGCCAGGCAGGCCAGGCCAGGCCAGGCCAGGCCAGGCAGGCCAGGCCAGGCAGGCAGGCCAGGCAGGCAGGCAGGCAGGCAGGCCAGGCAGGCAGGCAGGCCAGGCAGGCCAGGCCAGGCAGGCAGGCCAGGCCAGG$ TGTGCTGAAAATATGTTTCAGTATTTTTTTCAATGAATGTTAAGAGATTGTTCTCACTCCCGCCCCATCTTAATG TATAACCAACACCAAACACGTGGATCAACAGAAAAGGAAAATTTCACTCGTCTAAACACTTTCAATTTTCAGTTT TTATTTTATGTTCTATATACCCAGTCATAAAGTATAAGCATCAGTTGTCATTAAAAGTTTTCAGAAAATCTTGAG TTTTTCCCGTGCCACTTTTCTTAAATTATTTCCCAGTTAGTATTATCATATGTTTGTACCCGTCACAGTTTTCA 

## 2294/2682 FIGURE 2084

MAPPGPASALSTSAEPLSRSIFRKFLLMLCSLLTSLYVFYCLAERCQTLSGPVVGLSGGGEEAGAPGGGVLAGGP RELAVWPAAAQRKRLLQLPQWRRRPPAPRDDGEEAAWEEESPGLSGGPGGSGAGSTVAEAPPGTLALLLDEGSK QLPQAIIIGVKKGGTRALLEFLRVHPDVRAVGAEPHFFDRSYDKGLAWYRDLMPRTLDGQITMEKTPSYFVTREA PARISAMSKDTKLIVVVRDPVTRAISDYTQTLSKRPDIPTFESLTFKNRTAGLIDTSWSAIQIGIYAKHLEHWLR HFPIRQMLFVSGERLISDPAGELGRVQDFLGLKRIITDKHFYFNKTKGFPCLKKAEGSSRPHCLGKTKĢRTHPEI DREVVRRLREFYRPFNLKFYQMTGHDFGWDG

#### 2295/2682 FIGURE 2085

## 2296/2682 FIGURE 2086

MGHEQNQGAALLQMLPLLWLLPHSWAVPEAPTPMWPDDLQNHTFLHTVYCQDGSPŚVGLSEAYDEDQLFFFDFSQ NTRVPRLPEFADWAQEQGDAPAILFDKEFCEWMIQQIGPKLDGKIPVSRGFPIAEVFTLKPLEFGKPNTLVCFVS NLFPPMLTVNWQHHSVPVEGFGPTFVSAVDGLSFQAFSYLNFTPEPSDIFSCIVTHEIDRYTAIAYWVPRNALPS DLLENVLCGVAFGLGVLGIIVGIVLIIYFRKPCSGD

#### 2297/2682 FIGURE 2087

TTGGGAGGAGCAGTCTCTCCGGTCTCCCGGAGCTTTCTCCATTGTCTCTGCCTTTACAACAGAGGGAGACGA TGGACTGAGCTGATCCGCACCATGGAGTCTCGGGTCTTACTGAGAACATTCTGTTTGATCTTCGGTCTCGGAGCA GTTTGGGGGCTTGGTGTGGACCCTTCCCTACAGATTGACGTCTTAACAGAGTTAGAACTTGGGGAGTCCACGACC GGAGTGCGTCAGGTCCCGGGGCTGCATAATGGGACGAAAGCCTTTCTCTTTCAAGATACTCCCAGAAGCATAAAA GCATCCACTGCTACAGCTGAACAGTTTTTTCAGAAGCTGAGAAATAAACATGAATTTACTATTTTGGTGACCCTA AAACAGACCCACTTAAATTCAGGAGTTATTCTCTCAATTCACCACTTGGATCACAGGTACCTGGAACTGGAAAGT AGTGGCCATCGGAATGAAGTCAGACTGCATTACCGCTCAGGCAGTCACCGCCCTCACACAGAAGTGTTTCCTTAC ATTTTGGCTGATGACAAGTGGCACAAGCTCTCCTTAGCCATCAGTGCTTCCCATTTGATTTTACACATTGACTGC AATAAAATTTATGAAAGGGTAGTAGAAAAGCCCTCCACAGACTTGCCTCTAGGCACAACATTTTGGCTAGGACAG  ${\tt AGAAATAATGCGCATGGATATTTTAAGGGTATAATGCAAGATGTCCAATTACTTGTCATGCCCCAGGGATTTATT}$ GCTCAGTGCCCAGATCTTAATCGCACCTGTCCAACTTGCAATGACTTCCATGGACTTGTGCAGAAAATCATGGAG TATTGTGAAAGGACTTGCACCATGAAGGGAACCACCTACCGAGAATTTGAGTCCTGGATAGACGGCTGTAAGAAC TGCACATGCCTGAATGGAACCATCCAGTGTGAAACTCTAATCTGCCCAAATCCTGACTGCCCACTTAAGTCGGCT CTTGCGTATGTGGATGGCAAATGCTGTAAGGAATGCAAATCGATATGCCAATTTCAAGGACGAACCTACTTTGAA GGAGAAGAATACAGTCTATTCCTCTTCTGGAGTATGTGTTCTCTATGAGTGCAAGGACCAGACCATGAAACTT GTTGAGAGTTCAGGCTGTCCAGCTTTGGATTGTCCAGAGTCTCATCAGATAACCTTGTCTCACAGCTGTTGCAAA GTTTGTAAAGGTTATGACTTTTGTTCTGAAAGGCATAACTGCATGGAGAATTCCATCTGCAGAAATCTGAATGAC AGGGCTGTTTGTAGCTGTCGAGATGGTTTTAGGGCTCTTCGAGAGGATAATGCCTACTGTGAAGACATCGATGAG TGTGCTGAAGGGCCCCATTACTGTCGTGAAAATACAATGTGTGTCAACACCCCGGGTTCTTTTATGTGCATCTGC AAAACTGGATACATCAGAATTGATGATTATTCATGTACAGAACATGATGAGTGTATCACAAATCAGCACAACTGT GATGAAAATGCTTTATGCTTCAACACTGTTGGAGGACACAACTGTGTTTGCAAGCCGGGCTATACAGGGAATGGA CCACAAGGCTTCACTGGACCCAGCTGTGAAACGGACATTGATGAATGCTCTGATGGTTTTGTTCAATGTGACAGT CGTGCTAATTGCATTAACCTGCCTGGATGGTACCACTGTGAGTGCAGAGATGGCTACCATGACAATGGGATGTTT TCACCAAGTGGAGAATCGTGTGAAGATATTGATGAGTGTGGGACCGGGAGGCACAGCTGTGCCAATGATACCATT TGCTTCAATTTGGATGGCGGATATGATTGTCGATGTCCTCATGGAAAGAATTGCACAGGGGACTGCATCCATGAT GGAAAAGTTAAGCACAATGGTCAGATTTGGGTGTTGGAAAATGACAGGTGCTCTGTGTGCTCATGTCAGAATGGA TTCGTTATGTGTCGACGGATGGTCTGTGACTGTGAGAATCCCACAGTTGATCTTTTTTGCTGCCCTGAATGTGAC CCAAGGCTTAGTAGTCAGTGCCTCCATCAAAATGGGGAAACTTTGTATAACAGTGGTGACACCTGGGTCCAGAAT TGTCAACAGTGCCGCTGCTTGCAAGGGGAAGTTGATTGTTGGCCCCTGCCTTGCCCAGATGTGGAGTGTGAATTC AGCATTCTCCCAGAGAATGAGTGCTGCCCGCGCTGTGTCACAGACCCTTGCCAGGCTGACACCATCCGCAATGAC ATCACCAAGACTTGCCTGGACGAAATGAATGTGGTTCGCTTCACCGGGTCCTCTTGGATCAAACATGGCACTGAG TAACTGTCTCATGGGAGATTTCTGTTAAAAGAATGTTCTTTCATTAAAAGACCAAAAAGAAGTTAAAACTTAAAT TGGGTGATTTGTGGGCAGCTAAATGCAGCTTTGTTAATAGCTGAGTGAACTTTCAATTATGAAATTTGTGGAGCT TGACAAAATCACAAAAGGAAAATTACTGGGGCAAAATTAGACCTCAAGTCTGCCTCTACTGTGTCTCACATCACC ATGTAGAAGAATGGGCGTACAGTATATACCGTGACATCCTGAACCCTGGATAGAAAGCCTGAGCCCATTGGATCT GTGAAAGCCTCTAGCTTCACTGGTGCAGAAAATTTTCCTCTAGATCAGAATCTTCAGAATCAGTTAGGTTCCTCA CTGCAAGAATAAAATGTCAGGCAGTGAATGAATTATATTTTCAGAAGTAAAGCAAAGAAGCTATAACATGTTAT GTACAGTACACTCTGAAAAGAAATCTGAAACAAGTTATTGTAATGATAAAAATAATGCACAGGCATGGTTACTTA ATATTTTCTAACAGGAAAAGTCATCCCTATTTCCTTGTTTTACTGCACTTAATATTATTTGGTTGAATTTGTTCA GTATAAGCTCGTTCTTGTGCAAAATTAAATAAATATTTCTCTTACCTT

#### 2298/2682 FIGURE 2088

MESRVLLRTFCLIFGLGAVWGLGVDPSLQIDVLTELELGESTTGVRQVPGLHNGTKAFLFQDTPRSIKASTATAE QFFQKLRNKHEFTILVTLKQTHLNSGVILSIHHLDHRYLELESSGHRNEVRLHYRSGSHRPHTEVFPYILADDKW HKLSLAISASHLILHIDCNKIYERVVEKPSTDLPLGTTFWLGQRNNAHGYFKGIMQDVQLLVMPQGFIAQCPDLN RTCPTCNDFHGLVQKIMELQDILAKTSAKLSRAEQRMNRLDQCYCERTCTMKGTTYREFESWIDGCKNCTCLNGT IQCETLICPNPDCPLKSALAYVDGKCCKECKSICQFQGRTYFEGERNTVYSSSGVCVLYECKDQTMKLVESSGCP ALDCPESHQITLSHSCCKVCKGYDFCSERHNCMENSICRNLNDRAVCSCRDGFRALREDNAYCEDIDECAEGRHY CRENTMCVNTPGSFMCICKTGYIRIDDYSCTEHDECITNQHNCDENALCFNTVGGHNCVCKPGYTGNGTTCKAFC KDGCRNGGACIAANVCACPQGFTGPSCETDIDECSDGFVQCDSRANCINLPGWYHCECRDGYHDNGMFSPSGESC EDIDECGTGRHSCANDTICFNLDGGYDCRCPHGKNCTGDCIHDGKVKHNGQIWVLENDRCSVCSCQNGFVMCRM VCDCENPTVDLFCCPECDPRLSSQCLHQNGETLYNSGDTWVQNCQQCRCLQGEVDCWPLPCPDVECEFSILPENE CCPRCVTDPCQADTIRNDITKTCLDEMNVVRFTGSSWIKHGTECTLCQCKNGHICCSVDPQCLQEL

## 2299/2682 FIGURE 2089

GTAGTGGTGCCGACTTCCTGTTGTTTGAGGCCGGGTTGGGGGTGTGCGATTGTGTGGGACGGTCTGGGGCAGCCC AGCAGCGGCTGACCCTCTGCCTGCGGGGAAGGGAGTCGCCAGGCGGCCGTCATGGCGGTGTCGGAGAGCCAGCTC AAGAAAATGGTGTCCAAGTACAAATACAGAGACCTAACTGTACGTGAAACTGTCAATGTTATTACTCTATACAAA GATCTCAAACCTGTTTTGGATTCATATGTTTTTAACGATGGCAGTTCCAGGGAACTAATGAACCTCACTGGAACA ATCCCTGTGCCTTATAGAGGTAATACATACAATATTCCAATATGCCTATGGCTACTGGACACATACCCATATAAT CCCCCTATCTGTTTTGTTAAGCCTACTAGTTCAATGACTATTAAAACAGGAAAGCATGTTGATGCAAATGGGAAG ATATATCTTCCTTATCTACATGAATGGAAACACCCACAGTCAGACTTGTTGGGGCTTATTCAGGTCATGATTGTG GTATTTGGAGATGAACCTCCAGTCTTCTCTCGTCCTATTTCGGCATCCTATCCGCCATACCAGGCAACGGGGCCA CCAAATACTTCCTACATGCCAGGCATGCCAGGTGGAATCTCTCCATACCCATCCGGATACCCTCCCAATCCCAGT GGTTACCCAGGCTGTCCTTACCCACCTGGTGGTCCATATCCTGCCACAACAAGTTCTCAGTACCCTTCTCAGCCT CCTGTGACCACTGTTGGTCCCAGTAGGGATGGCACAATCAGCGAGGACACCATCCGAGCCTCTCTCATCTCTGCG GTCAGTGACAAACTGAGATGGCGGATGAAGGAGGAAATGGATCGTGCCCAGGCAGAGCTCAATGCCTTGAAACGA ACAGAAGAAGACCTGAAAAAAGGGTCACCAGAAACTGGAAGAGGTTACCCGTTTAGATCAAGAAGTAGCCGAG GTTGATAAAACATAGAACTTTTGAAAAAGAAGGATGAAGAACTCAGTTCTGCTCTGGAAAAAATGGAAAATCAG TCTGAAAACAATGATATCGATGAAGTTATCATTCCCACAGCTCCCTTATACAAACAGATCCTGAATCTGTATGCA GAAGAAAACGCTATTGAAGACACTATCTTTTACTTGGGAGAAGCCTTGAGAAGGGGGCGTGATAGACCTGGATGTC TTCCTGAAGCATGTACGTCTTCTGTCCCGTAAACAGTTCCAGCTGAGGGCACTAATGCAAAAAGCAAGAAAAGCT  ${\tt GCCGGTCTCAGTGACCTCTAC} \underline{{\tt TGA}}{\tt CTTCTCTGATACCAGCTGGAGGTTGAGCTCTTCTTAAAGTATTCTTCTCTT}$ CCTTTTATCAGTAGGTGCCCAGAATAAGTTATTGCAGTTTATCATTCAAGTGTAAAATATTTTTGAATCAATAATA TATTTTCTGTTTTCTTTTGGTAAAGACTGGCTTTTATTAATGCACTTTCTATCCTCTGTAAACTTTTTGTGCTGA 

## 2300/2682 FIGURE 2090

MAVSESQLKKMVSKYKYRDLTVRETVNVITLYKDLKPVLDSYVFNDGSSRELMNLTGTIPVPYRGNTYNIPICLW LLDTYPYNPPICFVKPTSSMTIKTGKHVDANGKIYLPYLHEWKHPQSDLLGLIQVMIVVFGDEPPVFSRPISASY PPYQATGPPNTSYMPGMPGGISPYPSGYPPNPSGYPGCPYPPGGPYPATTSSQYPSQPPVTTVGPSRDGTISEDT IRASLISAVSDKLRWRMKEEMDRAQAELNALKRTEEDLKKGHQKLEEMVTRLDQEVAEVDKNIELLKKKDEELSS ALEKMENQSENNDIDEVIIPTAPLYKQILNLYAEENAIEDTIFYLGEALRRGVIDLDVFLKHVRLLSRKQFQLRA LMQKARKTAGLSDLY

## 2301/2682 FIGURE 2091

# 2302/2682 FIGURE 2092

MAPNASCLCVHVRSEEWDLMTFDANPYDSVKKIKEHVRSKTKVPVQDQVLLLGSKILKPRRSLSSYGIDKEKTIH LTLKVVKPSDEELPLFLVESGDEAKRHLLQVRRSSSVAQVKAMIETKTGIIPETQIVTCNGKRLEDGKMMADYGI RKGNLLFLASYCIGG

#### 2303/2682 FIGURE 2093

GCAGACCTTGCTTCATGAGCAAGCTCATCTCTGGAACAACTGGCAAAGCATCTCTGGTGTTCATCAGAACA GACACCATGCCAGAGCATGATTACCATGAAGACTATGGGTTCAGCAGTTTCAATGACAGCAGCCAGGAGGAGCAT CAAGACTTCCTGCAGTTCAGCAAGGTCTTTCTGCCCTGCATGTACCTGGTGGTGTTTTGTCTGTGGTCTGGTGGGG AACTCTCTGGTGCTGGTCATATCCATCTTCTACCATAAGTTGCAGAGCCTGACGGATGTTCCTGGTGAACCTA  $\verb|CCCCTGGCTGACCTGGTGTTTGTCTGCACTCTGCCCTTCTGGGCCTATGCAGGCATCCATGAATGGGTGTTTGGC|\\$  ${\tt CAGGTCATGTGCAAGAGCCTACTGGGCATCTACACTATTAACTTCTACACGTCCATGCTCATCCTCACCTGCATC}$ ACTGTGGATCGTTTCATTGTAGTGGTTAAGGCCACCAAGGCCTACAACCAGCAAGCCAAGAGGATGACCTGGGGC AAGGTCACCAGCTTGCTCATCTGGGTGATATCCCTGCTGGTTTCCTTGCCCCAAATTATCTATGGCAATGTCTTT AATCTCGACAAGCTCATATGTGGTTACCATGACGAGGCAATTTCCACTGTGGTTCTTGCCACCCAGATGACACTG GGGTTCTTCTTGCCACTGCTCACCATGATTGTCTGCTATTCAGTCATAATCAAAACACTGCTTCATGCTGGAGGC TTCCAGAAGCACAGATCTCTAAAGATCATCTTCCTGGTGATGGCTGTGTTCCTGCTGACCCAGATGCCCTTCAAC CTCATGAAGTTCATCCGCAGCACACTGGGAATACTATGCCATGACCAGCTTTCACTACACCATCATGGTGACA GAGGCCATCGCATACCTGAGGGCCTGCCTTAACCCTGTGCTCTATGCCTTTGTCAGCCTGAAGTTTCGAAAGAAC TTCTGGAAACTTGTGAAGGACATTGGTTGCCTCCCTTACCTTGGGGTCTCACATCAATGGAAATCTTCTGAGGAC  ${\tt AATTCCAAGACTTTTCTGCCTCCCACAATGTGGAGGCCACCAGCATGTTCCAGTTA} \\ \underline{{\tt TAG}}{\tt GCCTTGCCAGGGTTT}$ GCGCATTCTCATGGAGAAGTTATCAGACACTCTGGCTGGTTTGGAATGCTTCTTCTCAGGCATGAACATGTACTG CCAAGAATGCTGAAACCAAGGGGGATGACATGTGACTCCTATGATCTCAGGTTCTCCTTGATTGGGACTGGGGCT GAAGGTTGAAGAGGTGAGCACGGCCAACAAAGCTGTTGATGGTAGGTGGCACACTGGGTGCCCAAGCTCAGAAGG CTCTTCTGACTACTGGGCAAAGAGTGTAGATCAGAGCAGCAGTGAAAACAAGTGCTGGCACCACCAGGCACCTCA CAGAAATGAGATCAGGCTCTGCCTCACCTTGGGGCTTGACTTTTGTATAGGTAGATGTTCAGATTGCTTTGATTA ATCCAGAATAACTAGCACCAGGGACTATGAATGGGCAAAACTGAATTATAAGAGGCTGATAATTCCAGTGGTCCA TGGAATGCTTGAAAAATGTGCAAAACAGCGTTTAAGACTGTAATGAATCTAAGCAGCATTTCTGAAGTGGACTCT TTGGTGGCTTTGCATTTTAAAAATGAAATTTTCCAATGTCTGCCACACAAACGTATGTAAATGTATATACCCACA CACATACACACATATGTCATATATTACTAGCATATGAGTTTCATAGCTAAGAAATAAAACTGTTAAAGTCTCCAA ACT

## 2304/2682 FIGURE 2094

MAEHDYHEDYGFSSFNDSSQEEHQDFLQFSKVFLPCMYLVVFVCGLVGNSLVLVISIFYHKLQSLTDVFLVNLPL ADLVFVCTLPFWAYAGIHEWVFGQVMCKSLLGIYTINFYTSMLILTCITVDRFIVVVKATKAYNQQAKRMTWGKV TSLLIWVISLLVSLPQIIYGNVFNLDKLICGYHDEAISTVVLATQMTLGFFLPLLTMIVCYSVIIKTLLHAGGFQ KHRSLKIIFLVMAVFLLTQMPFNLMKFIRSTHWEYYAMTSFHYTIMVTEAIAYLRACLNPVLYAFVSLKFRKNFW KLVKDIGCLPYLGVSHQWKSSEDNSKTFSASHNVEATSMFQL

#### 2305/2682 FIGURE 2095

 ${\tt TTGAAGTACATGATGTTCCTCTTCAATTTGATATTCTGGCTCTGTGGCTGTGGGCTGCTGGGAGTGGGCATCTGG}$  $\tt CTCTCCGTGTCCCAAGGCAACTTTGCCACCTTCTCCCCCAGCTTCCCTTCGTTGTCTGCAGCCAACCTGGTCATT$ GCCATAGGCACCATTGTCATGGTGACGGGCTTCCTCGGCTGCCTGGGGGCCATCAAGGAAAACAAGTGCCTCCTC  $\tt CTGAAGAACGCCTGGAACATCATCCAGGCTGAGATGCGATGCTGTGGTGTCACTGACTACACAGACTGGTACCCA$ GTGCTGGGGGAGAACACGGTTCCCGACCGCTGCTGCATGGAGAACTCCCAGGGCTGCGGGCGCAACGCCACCACCA CCTTTGTGGAGAACGGGCTGCTATGAAAAGGTGAAGATGTGGTTCGATGACAATAAGCACGTGCTGGGCACGGTG GGGATGTGCATCCTCATCATGCAGATCCTGGGCATGGCCTTCTCCATGACCCTCTTCCAGCACATCCACCGGACT  ${\tt GGTAAGAAGTACGACGCA}{\tt TGA}{\tt GCGGGCTGGCCGGGAGTGCCCACCCCGCCCTGCTGCCCTGTGGAGGGAAGAGGA}$ CCTACCCTGCCTCAGCCTCGGACTTCTCAGTGGGTGGAGTGCCAGGGAGGAGGAGGCACACGGAGACCTGGGGCT CGGGGCCCCTGGATTCCTGCATCTGCATATGCGTATTTGCCAAAGACGACAGGGTGGGCTGGGGTGCGCTCCGGA GGAACCCCGGCACTGATGGGCTTCTGCCCCTGCCCTTCCTCACACTGACACTTTGTCCCCACATGGGGTGGGGA GCAGAGTGCCCGCCCGTGGAGATACCGCCCCAGCGGGGGCTGCGACATCCATGGCCACCATGGGGCACCTGGCG GGGCGGGGGTCTGCCGGCCTCTGGGCAAGGCCCCTGGAGCATCTCGCCCAGGCTTTTTATACCTTACAATGTAAC AAAAAA

## 2306/2682 FIGURE 2096

MARGCLCCLKYMMFLFNLIFWLCGCGLLGVGIWLSVSQGNFATFSPSFPSLSAANLVIAIGTIVMVTGFLGCLGA IKENKCLLLSFFIVLLVILLAELILLILFFVYMDKVNENAKKDLKEGLLLYHTENNVGLKNAWNIIQAEMRCCGV TDYTDWYPVLGENTVPDRCCMENSQGCGRNATTPLWRTGCYEKVKMWFDDNKHVLGTVGMCILIMQILGMAFSMT LFQHIHRTGKKYDA

#### 2307/2682 FIGURE 2097

TTGGAACACCTGGCGAGTCCTCGGTGTCGGTGGCCGGCAGTCATCTCGCGGCCGTTCAGAATTATAAGGCTGTCT  $\texttt{GCAGAGATTTGAAAA} \underline{\textbf{ATG}} \texttt{GCAACAAATGAAAGTGTCAGCATCTTTAGTTCAGCATCCTTGGCTGTGGAATATGTA}$ GATTCACTTTTACCTGAGAATCCTCTGCAAGAACCATTTAAAAATGCTTGGAACTATATGTTGAATAATTATACA AAGTTCCAGATTGCAACATGGGGATCCCTTATAGTTCATGAAGCCCTTTATTTCTTATTCTGTTTACCTGGATTT TTATTTCAATTTATACCTTATATGAAAAAATACAAAATTCAAAAGGATAAGCCAGAGACATGGGAAAACCAATGG AAGTGTTTCAAAGTTCTTCTCTTTAATCACTTCTGTATCCAGCTGCCTTTGATTTGTGGAACCTATTATTTTACA GAGTATTTCAATATTCCTTATGATTGGGAAAGAATGCCAAGATGGTATTTTCTTTTGGCAAGATGCTTTGGTTGT GCAGTCATTGAAGATACTTGGCACTATTTTCTGCATAGACTCTTACACCCACAAAAGAATATACAAGTATATTCAT GGAACTGGATTTTCATTGGAATCGTGCTTTTGTGTGATCATGTAATTCTTCTTTGGGCATGGGTGACCATTCGT TTATTAGAAACTATTGATGTCCATAGTGGTTATGATATTCCTCTCAACCCTTTAAATCTGATCCCTTTCTATGCT GGTTCTCGGCATCATGATTTCCACCACATGAACTTCATTGGAAACTATGCTTCAACATTTACATGGTGGGATCGA ATTTTTGGAACAGACTCTCAGTATAATGCCTATAATGAAAAGAGGAAGAAGTTTGAGAAAAAGACTGAA<u>TAA</u>ATA TCTCACGTAAACCTTCCTGAAAGATAAACGTTTTCCTGAATTCAGAAACTAGTAGCTAACATTGCTTCTGGAGAG CAGAAATAAGCATGTCTTCTGGCTACTAAGTGATAAAAAGAACATTAACAACCTTTAATTACCTTCCTAGTGGGA GAAGTTTTAAAAGACCATGTTCCTAAGCTTCCAAGAAGGTTTTGGATACTAGAAGTATTAATCTATGGCTTTTCT CCCAGTAAAACCATAGGCCTGAAGTTCACATTGGGTCTTTAAATCTTTTAGATATATACTGGTCATTTCAGAAAA CTTGTCTGGAGTGTGGCACAGTCTCAGCTCACTGCAACCTCTGCCTCCCAGTTCAAGCAATTCTTCTGCCTC TTTCTCGATGTTGGCCAGGCTGGTCTCAAACTTCTGACCTCAAGTGATCTGCCCACCTTGGCCTCCCAAAGTGCT GGGATTACAGGTGTAAGCCACTGCGCCCGGCCTTTTTAACTTTAAACATGTTTTAGAATTCACCTAAAGATCAAA **ATATCATGGATTGAAC** 

## 2308/2682 FIGURE 2098

MATNESVSIFSSASLAVEYVDSLLPENPLQEPFKNAWNYMLNNYTKFQIATWGSLIVHEALYFLFCLPGFLFQFI PYMKKYKIQKDKPETWENQWKCFKVLLFNHFCIQLPLICGTYYFTEYFNIPYDWERMPRWYFLLARCFGCAVIED TWHYFLHRLLHHKRIYKYIHKVHHEFQAPFGMEAEYAHPLETLILGTGFFIGIVLLCDHVILLWAWVTIRLLETI DVHSGYDIPLNPLNLIPFYAGSRHHDFHHMNFIGNYASTFTWWDRIFGTDSQYNAYNEKRKKFEKKTE

## 2309/2682 FIGURE 2099

AAGATCTGGAAGACGCGCTCCTGCGCCGGTATTTCTGGGAAAAGCCAGCTTCTGTTTGCACTGGTCTTCACAACT CGTTACCTGGATCTTTTTACTTCATTTTTTCATTGTATAACACATCTATGAAGGTTATCTACCTTGCCTGCTCC TATGCCACAGTGTACCTGATCTACCTGAAATTTAAGGCAACCTACGATGGAAATCATGATACCTTCCGAGTGGAG TTTCTGGTGGTCCCTGTGGGAGGCCTCTCATTTTTAGTTAATCACGATTTCTCTCCTCTTGAGATCCTCTGGACC TTCTCCATCTACCTGGAGTCCGTGGCTATCCTTCCGCAGCTGTTTATGATCAGCAAGACTGGGGAGGCCGAGACC ATCACCACCACTACCTGTTCTTCCTGGGCCTCTATCGTGCTTTGTTATCTTGTCAACTGGATCTGGCGCTTCTAC TTTGAGGGCTTCTTTGACCTCATTGCTGTGGTGGCCGGCGTAGTCCAGACCATCCTATACTGTGACTTCTTCTAC TTGTACATTACAAAAGTACTCAAGGGAAAGAAGCTCAGTTTGCCAGCA<u>TAA</u>GTGCCAAAGACCATCACCAGCATC TGTCCTTCAGGGTGCTCGGACAGAATTCTTACCACAGCAAAGGCATAAGATGCTTGATACGGAAAATCAGAAACT TAACTCTTTTGTTGCAGATAGTCATCAGTGGCTCTGTAAAAACGCAGAGGAAAAGAGCCAGAAGGTTTCTGTTTA TAAATTCAGTGTGTAGCTTCAATTGGGATAGTTCCAAAAGTGAAGATTTTGTGAGGAATAAGTGCAAATTTTTTT TTTATTTTAAAAAATTCTTTGAAACTCTTAAGTCTTTGTGTCTGCAATGAAATTGTACTCCTTGACAGTTGATAG TGAAATCTGAGACACTATGTTCAATTGG

# 2310/2682 FIGURE 2100

MNIFRLTGDLSHLAAIVILLLKIWKTRSCAGISGKSQLLFALVFTTRYLDLFTSFISLYNTSMKVIYLACSYATV YLIYLKFKATYDGNHDTFRVEFLVVPVGGLSFLVNHDFSPLEILWTFSIYLESVAILPQLFMISKTGEAETITTH YLFFLGLYRALYLVNWIWRFYFEGFFDLIAVVAGVVQTILYCDFFYLYITKVLKGKKLSLPA

## 2311/2682 FIGURE 2101

TGGCCTGTGCTTCGAAGAACTCTGATCTGCTTTCTATAGATAATGAGGAAGAAATGGTATGTGTGGGGACTTCCC AGTTGGCTGTAAGTTGCCATTTGAACTAAACGAAATAGATCAGGAACTGAGGACATATCTAAATTTTCTAGTTTT ATAGAAGGCTTTTATCCACAAGAATCAAGATCTTCCCTCTCTGAGCAGGAATCCTTTGTGCATTGAAGACTTTAG ATTCCTCTCTGCGGTAGACGTGCACTTATAAGTATTTG<u>ATC</u>GGGTGGATTCGTGGTCGGAGGTCTCGACACAGCT GGGAGATGAGTGAATTTCATAATTATAACTTGGATCTGAAGAAGAGTGATTTTTCAACACGATGGCAAAAGCAAA TGGGAATCCGTTTCATTATTATGGTAGCAATATGGAGTGCTGTATTCCTAAACTCATTATTCAACCAAGAAGTTC AAATTCCCTTGACCGAAAGTTACTGTGGCCCATGTCCTAAAAACTGGATATGTTACAAAAATAACTGCTACCAAT TTTTTGATGAGAGTAAAAACTGGTATGAGAGCCAGGCTTCTTGTATGTCTCAAAATGCCAGCCTTCTGAAAGTAT ACAGCAAAGAGGACCAGGATTTACTTAAACTGGTGAAGTCATATCATTGGATGGGACTAGTACACATTCCAACAA ATGGATCTTGGCAGTGGGAAGATGGCTCCATTCTCTCACCCAACCTACTAACAATAATTGAAATGCAGAAGGGAG  $\mathtt{AAAGGACTGTG}$ TGCCAACCGAGACTAAAGGAAACAAACAAAAACAGGACAAAATGACCAAAGACTGTCAGATTTCTTAGACTCCAC CCACCTCCACAGGAAATTGCCTCATGGGCAGGGCCACAGCAGAGAGACACAGCATGGGCAGTGCCTTCCCTGCC TGTGGGGGTCATGCTGCCACTTTTAATGGGTCCTCCACCCAACGGGGTCAGGGAGGTGGTGCTGCCCCAGTGGGC CATGATTATCTTAAAGGCATTATTCTCCAGCCTTAAGATCTTAGGACGTTTCCTTTGCTATGATTTGTACTTGCT ATTGTATTTTGGAAGCACATAACTTGTTTGGTTTCACAGGTTCACAGTTAAGAAGGAATTTTGCCTCTGAATAAA 

# 2312/2682 FIGURE 2102

MGWIRGRRSRHSWEMSEFHNYNLDLKKSDFSTRWQKQRCPVVKSKCRENASPFFFCCFIAVAMGIRFIIMVAIWS AVFLNSLFNQEVQIPLTESYCGPCPKNWICYKNNCYQFFDESKNWYESQASCMSQNASLLKVYSKEDQDLLKLVK SYHWMGLVHIPTNGSWQWEDGSILSPNLLTIIEMQKGDCALYASSFKGYIENCSTPNTYICMQRTV

#### 2313/2682 FIGURE 2103

CTCGTGCCGAATTCGGCACGAGACCGCGTGTTCGCGCCTGGTAGAGATTTCTCGAAGACACCAGTGGGCCCGTGT TATCTGTAATCTTGATCCTGACCTTTGCCCTCTCTGTCACAAATCCCCTTCATGAACTAAAAGCAGCTGCTTTCC CCCAGACCACTGAGAAAATTAGTCCGAATTGGGAATCTGGCATTAATGTTGACTTGGCAATTTCCACACGGCAAT ATCATCTACAACAGCTTTTCTACCGCTATGGAGAAAATAATTCTTTGTCAGTTGAAGGGTTCAGAAAATTACTTC **AAAATATAGGCATAGATAAGATTAAAAGAATCCATATACACCATGACCACGACCATCACTCAGACCACGAGCATC** ACTCAGACCATGAGCGTCACTCAGACCATGAGCATCACTCAGACCACGAGCATCACTCTGACCATAATCATGCTG CTTCTGGTAAAAATAAGCGAAAAGCTCTTTGCCCAGACCATGACTCAGATAGTTCAGGTAAAGATCCTAGAAACA GCCAGGGGAAAGGAGCTCACCGACCAGAACATGCCAGTGGTAGAAGGAATGTCAAGGACAGTGTTAGTGCTAGTG AAGTGACCTCAACTGTGTACAACACTGTCTCTGAAGGAACTCACTTTCTAGAGACAATAGAGACTCCAAGACCTG CTGGTAGGAAAACAAATGAATCTGTGAGTGAGCCCCGAAAAGGCTTTATGTATTCCAGAAACACAAATGAAAATC CTCAGGAGTGTTTCAATGCATCAAAGCTACTGACATCTCATGGCATGGGCATCCAGGTTCCGCTGAATGCAACAG AGTTCAACTATCTCTGTCCAGCCATCATCAACCAAATTGATGCTAGATCTTGTCTGATTCATACAAGTGAAAAGA AGGCTGAAATCCCTCCAAAGACCTATTCATTACAAATAGCCTGGGTTGGTGGTTTTATAGCCATTTCCATCATCA GTTTCCTGTCTCTGGGGGGTTATCTTAGTGCCTCTCATGAATCGGGTGTTTTTCAAATTTCTCCTGAGTTTCC TTGTGGCACTGGCCGTTGGGACTTTGAGTGGTGATGCTTTTTTACACCTTCTTCCACATTCTCATGCAAGTCACC ACCATAGTCATAGCCATGAAGAACCAGCAATGGAAATGAAAAGAGGACCACTTTTCAGTCATCTGTCTTCTCAAA ACATAGAAGAAGTGCCTATTTTGATTCCACGTGGAAGGGTCTAACAGCTCTAGGAGGCCTGTATTTCATGTTTC TTGTTGAACATGTCCTCACATTGATCAAACAATTTAAAGATAAGAAAAAGAAAACAATCAGAAGAAAACCTGAAAATG ATGATGATGTGGAGATTAAGAAGCAGTTGTCCAAGTATGAATCTCAACTTTCAACAAATGAGGAGAAAGTAGATA CAGATGATCGAACTGAAGGCTATTTACGAGCAGACTCACAAGAGCCCTCCCACTTTGATTCTCAGCAGCCTGCAG TCTTGGAAGAAGAAGAGGTCATGATAGCTCATGCTCATCCACAGGAAGTCTACAATGAATATGTACCCAGAGGGT GCAAGAATAAATGCCATTCACATTTCCACGATACACTCGGCCAGTCAGACGATCTCATTCACCACCATCATGACT AGCTGAAAGATGCCGGCGTCGCCACTTTGGCCTGGATGGTGATAATGGGTGATGGCCTGCACAATTTCAGCGATG GCCTAGCAATTGGTGCTGCTTTTACTGAAGGCTTATCAAGTGGTTTAAGTACTTCTGTTGCTGTTCTGTCATG AGTTGCCTCATGAATTAGGTGACTTTGCTGTTCTACTAAAGGCTGGCATGACCGTTAAGCAGGCTGTCCTTTATA ATGCATTGTCAGCCATGCTGGCGTATCTTGGAATGGCAACAGGAATTTTCATTGGTCATTATGCTGAAAATGTTT ACAATGATGCTAGTGACCATGGATGTAGCCGCTGGGGGTATTTCTTTTTACAGAATGCTGGGATGCTTTTGGGTT  $\tt TTGGAATTATGTTACTTATTTCCATATTTGAACATAAAATCGTGTTTCGTATAAATTTCTAGTTAAGGTT{\color{red}{TAA}AT}$ GCTAGAGTAGCTTAAAAAGTTGTCATAGTTTCAGTAGGTCATAGGGAGATGAGTTTGTATGCTGTACTATGCAGC TAATATTTAAGTTATTCTATCTTGGAGATAAAATCTGTATGTGCAATTCACCGGTATTACCAGTTTATTATGTAA ACAAGAGATTTTGGCATGACATGTTCTGTATGTTTCAGGGAAAAATGTCTTTAATGCTTTTTCAAGAACTAACACA GTTATTCCTATACTGGATTTTAGGTCTCTGAAGAACTGCTGGTG

## 2314/2682 FIGURE 2104

MARKLSVILILTFALSVTNPLHELKAAAFPQTTEKISPNWESGINVDLAISTRQYHLQQLFYRYGENNSLSVEGF
RKLLQNIGIDKIKRIHIHHDHDHHSDHEHHSDHEHHSDHEHHSDHHHAASGKNKRKALCPDHDSDSSGK
DPRNSQGKGAHRPEHASGRRNVKDSVSASEVTSTVYNTVSEGTHFLETIETPRPGKLFPKDVSSSTPPSVTSKSR
VSRLAGRKTNESVSEPRKGFMYSRNTNENPQECFNASKLLTSHGMGIQVPLNATEFNYLCPAIINQIDARSCLIH
TSEKKAEIPPKTYSLQIAWVGGFIAISIISFLSLLGVILVPLMNRVFFKFLLSFLVALAVGTLSGDAFLHLLPHS
HASHHHSHSHEEPAMEMKRGPLFSHLSSQNIEESAYFDSTWKGLTALGGLYFMFLVEHVLTLIKQFKDKKKKNQK
KPENDDDVEIKKQLSKYESQLSTNEEKVDTDDRTEGYLRADSQEPSHFDSQQPAVLEEEEVMIAHAHPQEVYNEY
VPRGCKNKCHSHFHDTLGQSDDLIHHHHDYHHILHHHHHQNHHPHSHSQRYSREELKDAGVATLAWMVIMGDGLH
NFSDGLAIGAAFTEGLSSGLSTSVAVFCHELPHELGDFAVLLKAGMTVKQAVLYNALSAMLAYLGMATGIFIGHY
AENVSMWIFALTAGLFMYVALVDMVPEMLHNDASDHGCSRWGYFFLQNAGMLLGFGIMLLIPYLNIKSCSYKFLV

#### 2315/2682 FIGURE 2105

## 2316/2682 FIGURE 2106

MATWALLLLAAMLIGNPGLVFSRLSPEYYDLARAHLRDEEKSCPCLAQEGPQGDLLTKTQELGRDYRTCLTIVQK LKKMVDKPTQRSVSNAATRVCRTGRSRWRDVCRNFMRRYQSRVTQGLVAGETAQQICEDLRLCIPSTGPL

## 2317/2682 FIGURE 2107

CCAGGCTGGGGCTGCTGCTGCTGCTGCTCCTACCCACGCAGATTTATTCCAGTGAAACAACAACTG GAACTICAAGTAACTCCTCCCAGAGTACTTCCAACTCTGGGTTGGCCCCAAATCCAACTAATGCCACCAAGG AGACTCAGGCCAAGAAACGTCTTCTAAATTTCCCCATCTTCTAAACCCAATCCAAATGGCGTCTGGAAGTCCAAT GTGGCAAGGAAAAACAGGTCTTCATCGAATCTACTAATTCCACACCTTTTATTGACACAGAAAATGTTGAGAAATC CCAAATTTGATTGATTTGAAGAACATGTGAGAGGTTTGACTAGATGATGAATGCCAATATTAAATCTGCTGGAGT TTCATGTACAAGATGAAGGAGGGCAACATCCAAAATAGTTAAGACATGATTTCCTTGAATGTGGCTTGAGAAAT ATGGACACTTAATACTACCTTGAAAATAAGAATAGAAATAAAGGATGGGATTGTGGAATGGAGATTCAGTTTTCA TTGGTTCATTAATTCTATAAGGCCATAAAACAGGTAATATAAAAAGCTTCCATCGATCTATTTATATGTACATGA GAAGGAATCCCCAGGTGTTACTGTAATTCCTCAACGTATTGTTTCGACGGCACTAATTTAATGCCGATATACTCT AGATGAATGTTTACATTGTTGAGCTATTGCTGTTCTCTTGGGAACTGAACTCACTTTCCTCCTGAGGCTTTGGAT  ${\tt CCAAGCATCCTGAGCAACTCTTGATTATCCATATTGAGTCAAATGGTAGGCATTTCCTATCACCTGTTTCCATTC}$ AACAAGAGCACTACATTCTTTTAGCTAAACGGATTCCAAAGAGTAGAATTGCATTGACCACGACTAATTTCAAAA TGCTTTTTATTATTATTTTTTTTAGACAGTCTCACTTTGTCGCCCAGGCCGGAGTGCAGTGGTGCGATCTCAGA  ${\tt TCAGTGTACCATTTGCCTCCCGGGCTCAAGCGATTCTCCTGCCTCAGCCTCCCAAGTAGCTGGGATTACAGGCAC}$ ACTCCTGACCTCAGGTGATCCACCCGCCTCGGCCTCCCAAAGTGCTGGGATTACAGGCTTGAGCCCCCGCGCCCA GCCATCAAAATGCTTTTATTTCTGCATATGTTTGAATACTTTTTACAATTTAAAAAAATGATCTGTTTTGAAGG CAAAATTGCAAATCTTGAAATTAAGAAGGCAAAATGTAAAGGAGTCAAACTATAAATCAAGTATTTGGGAAGTGA CAACTATGGATCAGAATAGCAACATTTAGAACACTTTTTGTTATCAGTCAATATTTTTAGATAGTTAGAACCTGG TCCTAAGCCTAAAAGTGGGCTTGATTCTGCAGTAAATCTTTTACAACTGCCTCGACACACATAAACCTTTTTAAA AATAGACACTCCCCGAAGTCTTTTGTTTGTATGGTCACACACTGATGCTTAGATGTTCCAGTAATCTAATATGGC TTTGAAGCTACTGTGTGTGTGAATGAACACTCTTGCTTTATTCCAGAATGCTGTACATCTATTTTGGATTGTATA TTGTGGTTGTGTTTTACGCTTTGATTCATAGTAACTTCTTATGGAATTGATTTGCATTGAACGACAAACTGTAA ATAAAAAGAAACGGTG

# 2318/2682 FIGURE 2108

 ${\tt MGRAMVARLGLGLLLLLLPTQIYSSETTTGTSSNSSQSTSNSGLAPNPTNATTKAAGGALQSTASLFVVSLSLLLLYS}$ 

#### 2319/2682 FIGURE 2109

CTTCGCGGCTTGGTAACATAAAAGTTTGTTTCACCACGTAAGCCGGACCTCGCACTCCGGTCCCGGTCTCGTCGC CAAGATGGTGAAGCCCAAGTACAAAGGACGGAGCACCATCAACCCGTCCAAGGCCAGCACAAACCCAGATCGAGT GCAGGGAGCAGGAGGCCAAAACATGAGGGACCGGGCCACCATCCGGCGCCTGAATATGTATAGGCAAAAGGAGCG AGAGCCAAATATTAAATGGTTTGGAAACACACGTGTGATTAAGCAGTCATCATTACAAAAATTTCAAGAGGAAAT AATCCGGCCTCATAACTTGAAGGTGCACATTCTTGATACTGAAAGTTTTGAAACTACATTTGGCCCTAAGTCACA GAGGAAACGACCAAACTTATTTGCAAGTGATATGCAGTCTCTTATCGAAAATGCTGAAATGTCCACTGAGAGCTA TGACCAGGGCAAGGATCGTGATTTGGTAACTGAAGACACTGGTGTGAGAAATGAAGCTCAAGAAGAGATCTATAA AAAGGGACAGTCCAAAAGAATATGGGGTGAGCTCTACAAGGTGATAGATTCATCAGATGTTGTAGTTCAAGTTCT TGATGCTAGAGATCCAATGGGTACTCGTTCCCCTCACATTGAAACTTACCTGAAGAAGGAAAAACCTTGGAAACA CCTCATTTTTGTACTTAACAAATGTGACCTTGTTCCAACCTGGGCAACAAAACGGTGGGTTGCTGTCCTCCCA GCAGTTTGGAAAGTTGCACACTGACAAGAAACAGATCAGTGTTGGGTTCATTGGCTATCCAAATGTTGGCCAAGAG CTCTGTGATAAATACATTGCGTTCTAAGAAAGTTTGCAACGTGGCTCCCATTGCAGGTGAAACAAAGGTCTGGCA GTATATTACTTTGATGCGTCGGATATTCCTGATTGACTGTCCAGGTGTGGTTTACCCCTCTGAGGACTCCGAGAC AGACATTGTGCTAAAAGGAGTTGTTCAAGTAGAAAAAATTAAGAGTCCTGAAGACCACATTGGTGCTGTACTTGA GCTCGCTTTCCGGACTGGGAAGTTACTAAAGGGTGGAGAGCCCGACTTGCAGACTGTGGGTAAGATGGTCCTCAA TGACTGGCAGAGGGGCCGGATTCCTTTCTTTGTCAAGCCACCCAATGCAGAGCCACTTGTGGCCCCCCAGCTTCT TGAAGGGTCAGAATCCATCATTAAGGAAGAAACAGAAGAGAACAGTCACTGTGATGCTAACACAGAGATGCAGCA GATTCTCACACGAGTTCGGCAGAACTTTGGTAAAATCAACGTGGTGCCTCAGTTTTCTGGGGATGACCTGGTTCC AGATGATGCGGAAGAGTCTTCCTCGGAGCCTGAGGAGGAAAATGTGGGAAACGACACCAAAGCCGTTATTAAAGC ACTGGATGAGAAGATTGCCAAATATCAGAAGTTTCTAGACAAAGCCAAAAGCCAAAAAGTTTTCAGCAGTCAGAAT ATCCAAGGGACTGAGTGAAAAGATATTTGCAAAACCTGAAGAACAAAGAAAAACACTGGAAGAAGATGTAGATGA CAGAGCACCTTCCAAAAAGGGAAAGAAGCGGAAGGCACAAAGGGAAGAGGAACAGGAACATTCAAATAAAGCTCC CAGGGCGCTTACATCAAAAGAACGGAGGCGAGCAGTACGACAGCAACGGCCGAAAAAAAGTTGGTGTGCGCTACTA TGAAACACAACGTGAAAAATAGGAACAGGAACAAAAAGAAGACCAATGACTCAGAGGGACAGAAACACAAACG AAAAA

## 2320/2682 FIGURE 2110

MVKPKYKGRSTINPSKASTNPDRVQGAGGQNMRDRATIRRLNMYRQKERRNSRGKIIKPLQYQSTVASGTVARVE
PNIKWFGNTRVIKQSSLQKFQEEMDTVMKDPYKVVMKQSKLPMSLLHDRIRPHNLKVHILDTESFETTFGPKSQR
KRPNLFASDMQSLIENAEMSTESYDQGKDRDLVTEDTGVRNEAQEEIYKKGQSKRIWGELYKVIDSSDVVVQVLD
ARDPMGTRSPHIETYLKKEKPWKHLIFVLNKCDLVPTWATKRWVAVLSQDYPTLAFHASLTNPFGKGAFIQLLRQ
FGKLHTDKKQISVGFIGYPNVGKSSVINTLRSKKVCNVAPIAGETKVWQYITLMRRIFLIDCPGVVYPSEDSETD
IVLKGVVQVEKIKSPEDHIGAVLERAKPEYISKTYKIDSWENAEDFLEKLAFRTGKLLKGGEPDLQTVGKMVLND
WQRGRIPFFVKPPNAEPLVAPQLLPSSSLEVVPEAAQNNPGEEVTETAGEGSESIIKEETEENSHCDANTEMQQI
LTRVRQNFGKINVVPQFSGDDLVPVEVSDLEEELESFSDEEEEEQEQQRDDAEESSSEPEEENVGNDTKAVIKAL
DEKIAKYQKFLDKAKAKKFSAVRISKGLSEKIFAKPEEQRKTLEEDVDDRAPSKKGKKRKAQREEEQEHSNKAPR
ALTSKERRRAVRQQRPKKVGVRYYETHNVKNRNRNKKKTNDSEGQKHKRKKFRQKQ

#### 2321/2682 FIGURE 2111

## 2322/2682 FIGURE 2112

MAPLLLQLAVLGAALAAAALVLISIVAFTTATKMPALHRHEEEKFFLNÄKGQKETLPSIWDSPTKQLSVVVPSYN EEKRLPVMMDEALSYLEKRQKRDPAFTYEVIVVDDGSKDQTSKVAFKYCQKYGSDKVRVITLVKNRGKGGAIRMG IFSSRGEKILMADADGATKFPDVEKLEKGLNDLQPWPNQMAIACGSRAHLEKESIAQRSYFRTLLMYGFHFLVWF LCVKGIRDTQCGFKLFTREAASRTFSSLHVERWAFDVELLYIAQFFKIPIAEIAVNWTEIEGSKLVPFWSWLQMG KDLLFIRLRYLTGAWRLEQTRKMN

#### 2323/2682 FIGURE 2113

# 2324/2682 FIGURE 2114

 ${\tt MACRCLSFLLMGTFLSVSQTVLAQLDALLVFPGQVAQLSCTLSPQHVTIRDYGVSWYQQRAGSAPRYLLYYRSEE} \\ {\tt DHHRPADIPDRFSAAKDEAHNACVLTISPVQPEDDADYYCSVGYGFSP}$ 

#### 2325/2682 FIGURE 2115

GTAATCCTACTTTATACATTTTAAACATTATTCTGAGAAGTAGTCCACATGGTTCACTTATTAAGAAGTTCACGG GTGATTAACAGTGACCAGACAACCAACTGACTCATCAAAATCCCATGTCACAGCTAACAAGAACTAAGTTTGCAA TGAATTAAATGAAAATTACCTTTTCCCTATTTGCAGGCTGCTCCATGTCATGTCATTATAGGCTGATAATA TATTTTGTCAACCTCCAAACCAGATTCCTATTCTAAAAAATCACAAATAAAGCAAACCTACCATTTGCAGCAAAC TCTAAACCAAGAAAAATGATCACCTTTGTTGCTTATTTCAGAAAGCCAAGATAAAAAGAGCAGA**ATG**TGCAGAAA AATATGTGCTGCACTAGACCTCTGGTCCAACCCTCACAATCATCAGTACTGTCTGAGACTTCCAGCTGGTTCTCA AGGCCTCCGGGACTCAATTTTCAAAGGCATCTGTACCTCCTTGTCCTCTTGTACACTCGTCTTCTACTCTCTCA GCCTAGGACTACACCACAGTCATTCCCAGCTCCATACCTCTGCTCTGACCTGCAACAACATGTATTCCACCTGTC CTTCAAGTCAGTTGCATGCAACCTTTGTCCTCATTGAGCCCTCCCCTTGTCTGATAAGATTCAGAACCCATTAAT ACTGAACACATATCTGTTTTACTATTTCCTCCACTAGAATTCTCATTTTCTTCGTATATAAAAAAGTCTTTCAAG TGGGGGGTGGGAGTTGATCCTCCCACCCAGTCTGCCCCTGGTCTCTGCCCATCCAATCAGAGCCCACCCTCCTGG AAGAGACCCCCGTGTTCAGAGTGCTGGCAGCCCTGCACGTGTCCAGGGACACTGCATTTCAAAGAACCACTGAGT TCATCATAGAGGTAGAAAGCAAACAATCTGGGGCTCAGCACACCTGGGGGTGCTCCCACTCATTCAGTGTGTGGG GCCCCTGAGCAGAGGCTGGGCATTGCCACTAGAACCTGAGCTCCTAGAGAGCAAGGACCTGGGTGGCCTCGCTTA AAAAAAAAAAAAAAAAAAAAAA

## 2326/2682 FIGURE 2116

 ${\tt MCRKICAALDLWSNPHNHQYCLRLPAGSQGLRDSIFKGICTSLSSCTLVFYSLQPRTTPQSFPAPYLCSDLQQNV} \\ {\tt FHLSFKSVACNLCPH}$ 

#### 2327/2682 FIGURE 2117

TGGCATCAGCTTGGGCAGGTGTGCGGGCTCAGGATGGGGCGCCGTGTTGAGGAACCCTGGACTCTCAGAGATGG AATTTCACCGTGTTGCCTAGGCTGGTCTGGAGCTCTTGATCTCAAGCGATCCTCCCTGCCTCGGCCTCCCAACGT GCTGGGATTATAGGCGTGAGCCACCGCTCCTGGCCAGGGTCTGTTCCTAGTTGCAACAGTTCTTGGAAACCCACT CGAGAGGGCCACGCCTCCATTCACCAGGCCACGCATCACAAGAGGCCAACACCAGGAGCCAACATCAGGGGA GCCCAGGTGCAAAGAGGTCAGAGAAAATCTACCAGCAGAGAAGTCTGCGTGAGGACCAACAGAGCTTTACGGGGT TGTTGCAATTCTACCCCAGCCTGGAGGATCCAGCATCTTCCAGGTACCAGAACTTCAGCAAAGGAAGCAGACACG GGTCGGAGGAAGCCTACATAGACCCCATTGCCATGGAGTATTACAACTGGGGGCGGTTCTCGAAGCCCCCAGAAG ATGATGATGCCAATTCCTACGAGAATGTGCTCATTTGCAAGCAGAAAACCACAGAGACAGGTGCCCAGCAGGAGG GCATAGGTGGCCTCTGCAGAGGGGACCTCAGCCTGTCACTGGCCCTGAAGACTGGCCCCACTTCTGGTCTCTGTC CCAGGAAGGTCATGGGGCAACTCCAGAGAGAAGCATCCCCTGGCCCGGTGGGAAGCCCAGACGAGGAGGACGGGG GAGGGACCACTGTGCTCATGGACCCATCGCTGCCTTCCAAGGACCATTTCCCAGAGCTACTCAACTTTTAAGCCC CTGCCATGGTTGCTCCTGGAAGGAGCACCAGCCACCCTGAGGACCACCTGGCCATGCGTGCACAGCCTGGGAAAA TACCAAGGGTAACCCGGCTCCTGGTATGGACGGATGCGCAGGATTTAGGATAAGCTGTCACCCAGTCCCCATAAC CTGGGGTTTTAAATGATTGATAAGCTTGTACAGTTAACTTATAGAGGGGGAGCCATATTTAACATTCTGGATTTC  $\tt CTGGCTCTTCCCCTTTGGTGGGACCTCCCCTTTCTTTGGGCTTCAGTTCACTCAGGAAGAAATGAGGCTGTCG$ CCATCTTTATGTGCTTCCAGTGGAAATGTCACTTGCTACAGACAATAGTGCATGAGAGTCTAGAGAAGTAGTGAC CAGAACAGGGCAGAGTAGGTCCCCTCCATGGCCCTGAATCCTCCTCTGCTCCAGGGCTGGCCTCTGCAGAGCTGA TTAAACAGTGTTGTGACTGTCTCATGGGAAGAGCTGGGGCCCAGAGGGACCTTGAGTCAGAAATGTTGCCAGAAA 

## 2328/2682 FIGURE 2118

MSSGTELLWPGAALLVLLGVAASLCVRCSRPGAKRSEKIYQQRSLREDQQSFTGSRTYSLVGQAWPGPLADMAPT RKDKLLQFYPSLEDPASSRYQNFSKGSRHGSEEAYIDPIAMEYYNWGRFSKPPEDDDANSYENVLICKQKTTETG AQQEGIGGLCRGDLSLSLALKTGPTSGLCPSASPEEDEESEDYQNSASIHQWRESRKVMGQLQREASPGPVGSPD EEDGEPDYVNGEVAATEA

#### 2329/2682 FIGURE 2119

## 2330/2682 FIGURE 2120

MADAASQVLLGSGLTILSQPLMYVKVLIQVGYEPLPPTIGRNIFGRQVCQLPGLFSYAQHIASIDGRRGLFTGLT PRLCSGVLGTVVHGKVLQHYQESDKGEELGPGNVQKEVSSSFDHVIKETTREMIARSAATLITHPFHVITLRSMV QFIGRESKYCGLCDSIITIYREEGILGFFAGLVPRLLGDILSLWLCNSLAYLVNTYALDSGVSTMNEMKSYSQAV TGFFASMLTYPFVLVSNLMAVNNCGLAGGCPPYSPIYTSWIDCWCMLQKEGNMSRGNSLFFRKVPFGKTYCCDLK MLI

#### 2331/2682 FIGURE 2121

 $\verb|CCGGCCCCCACCCACGTCTGCGTTGCTGCCCCGCCTGGGCCAGGCCCCAAAGGCAAGGACAAAGCAGCTGTCAG| \\$ GGAACCTCCGCCGGAGTCGAATTTACGTGCAGCTGCCGGCAACCACAGGTTCCAAGATCGTTTGCGGGGGCTTCG CGTGTTCCAAGAACTGCCTGTGCGCCCTCAACCTGCTTTACACCTTGGTTAGTCTGCTGAATTGGAATTGCTG  $\tt CGTGGGGCATTGGCTTCGGGCTGATTTCCAGTCTCCGAGTGGTCGGCGTGGTCATTGCAGTGGGCATCTTCTTGT$ TCCTGATTGCTTTAGTGGGTCTGATTGGAGCTGTAAAACATCATCAGGTGTTGCTATTTTTTTATATGATTATTC TGTTACTTGTATTTATTGTTCAGTTTTCTGTATCTTGCGCTTGTTTAGCCCTGAACCAGGAGCAACAGGGTCAGC TTCTGGAGGTTGGTTGGAACAATACGGCAAGTGCTCGAAATGACATCCAGAGAAATCTAAACTGCTGTGGGTTCC GAAGTGTTAACCCAAATGACACCTGTCTGGCTAGCTGTGTTAAAAGTGACCACTCGTGCTCGCCATGTGCTCCAA TCATAGGAGAATATGCTGGAGAGGTTTTGAGATTTGTTGGTGGCATTGGCCTGTTCTTCAGTTTTACAGAGATCC  $\tt TGGGTGTTTGGCTGACCTACAGATACAGGAACCAGAAAGACCCCCGCGCGAATCCTAGTGCATTCCTT{\color{red}{\textbf{TGA}}}{\color{blue}{\textbf{TGAG}}}{\color{blue}{\textbf{TGA$ AAAACAAGGAAGATTTCCTTTCGTATTATGATCTTGTTCACTTTCTGTAATTTTCTGTTAAGCTCCATTTGCCAG TTTAAGGAAGGAAACACTATCTGGAAAAGTACCTTATTGATAGTGGAATTATATTTTTTACTCTATGTTTCTCT ACATGTTTTTTTTTTCCGTTGCTGAAAAATATTTGAAACTTGTGGTCTCTGAAGCTCGGTGGCACCTGGAATTT ACTGTATTCATTGTCGGGCACTGTCCACTGTGGCCTTTCTTAGCATTTTTACCTGCAGAAAAACTTTGTATGGTA CCACTGTGTTGGTTATATGGTGAATCTGAACGTACATCTCACTGGTATAATTATATGTAGCACTGTGCTGTAG ATAGTTCCTACTGGAAAAAGAGTGGAAATTTATTAAAATCAGAAAGTATGAGATCCTGTTATGTTAAGGGAAATC CAAATTCCCAATTTTTTTTGGTCTTTTTAGGAAAGATGTGTTGTGGTAAAAAGTGTTAGTATAAAAATGATAATT TACTTGTAGTCTTTTATGATTACACCAATGTATTCTAGAAATAGTTATGTCTTAGGAAATTGTGGTTTAATTTTT GACTTTTACAGGTAAGTGCAAAGGAGAAGTGGTTTCATGAAATGTTCTAATGTATAATAACATTTACCTTCAGCC TCCATCAGAATGGAACGAGTTTTGAGTAATCAGGAAGTATATCTATATGATCTTGATATTGTTTTATAATAATTT GAAGTCTAAAAGACTGCATTTTTAAACAAGTTAGTATTAATGCGTTGGCCCACGTAGCAAAAAGATATTTGATTA TCTTAAAAATTGTTAAATACCGTTTTCATGAAAGTTCTCAGTATTGTAACAGCAACTTGTCAAACCTAAGCATAT TTGAATATGATCTCCCATAATTTGAAATTGAAATCGTATTGTGTGGCTCTGTATATTCTGTTAAAAAATTAAAGG 

## 2332/2682 FIGURE 2122

MVCGGFACSKNCLCALNLLYTLVSLLLIGIAAWGIGFGLISSLRVVGVVIAVGIFLFLIALVGLIGAVKHHQVLL FFYMIILLLVFIVQFSVSCACLALNQEQQGQLLEVGWNNTASARNDIQRNLNCCGFRSVNPNDTCLASCVKSDHS CSPCAPIIGEYAGEVLRFVGGIGLFFSFTEILGVWLTYRYRNQKDPRANPSAFL

#### 2333/2682 FIGURE 2123

 $\tt GGCACGAGGAAAATCAAGATAAAA{\color{red} ATG} TTCACAATTAAGCTCCTTCTTTTTATTGTTCCTCTAGTTATTTCCTCC$ AGAATTGATCAAGACAATTCATCATTTGATTCTCTATCTCCAGAGCCAAAATCAAGATTTGCTATGTTAGACGAT GTAAAAATTTTAGCCAATGGCCTCCTTCAGTTGGGACATGGTCTTAAAGACTTTGTCCATAAGACGAAGGGCCAA ATTAATGACATATTTCAAAAACTCAACATATTTGATCAGTCTTTTTATGATCTATCGCTGCAAACCAGTGAAATC AAAGAAGAAAAAGGAACTGAGAAGAACTACATATAAACTACAAGTCAAAAATGAAGAGGTAAAGAATATGTCA CTTGAACTCAACTCAAAACTTGAAAGCCTCCTAGAAGAAAAAATTCTACTTCAACAAAAAGTGAAATATTTAGAA GAGCAACTAACTAACTTAATTCAAAATCAACCTGAAACTCCAGAACACCCAGAAGTAACTTCACTTAAAACTTTT GTAGAAAAACAAGATAATAGCATCAAAGACCTTCTCCAGACCGTGGAAGACCAATATAAACAATTAAACCAACAG CATAGTCAAATAAAAGAAATAGAAAATCAGCTCAGAAGGACTAGTATTCAAGAACCCACAGAAATTTCTCTATCT CCTGCTGAATGTACCACCATTTATAACAGAGGTGAACATACAAGTGGCATGTATGCCATCAGACCCAGCAACTCT CAAGTTTTTCATGTCTACTGTGATGTTATATCAGGTAGTCCATGGACATTAATTCAACATCGAATAGATGGATCA GAGAAGATATACTCCATAGTGAAGCAATCTAATTATGTTTTACGAATTGAGTTGGAAGACTGGAAAGACAACAAA CATTATATTGAATATTCTTTTACTTGGGAAATCACGAAACCAACTATACGCTACATCTAGTTGCGATTACTGGC AATGTCCCCAATGCAATCCCGGAAACAAAGATTTGGTGTTTTCTACTTGGGATCACAAAGCAAAAGGACACTTC AACTGTCCAGAGGGTTATTCAGGAGGCTGGTGGTGGCATGATGAGTGTGGAGAAAACAACCTAAATGGTAAATAT  $\texttt{TCTATAAAATCAACCAAAATGTTGATCCATCCAACAGATTCAGAAAGCTTTGAA} \underline{\textbf{TGA}} \\ \texttt{ACTGAGGCAAATTTAAAA}$ GGCAATAATTTAAACATTAACCTCATTCCAAGTTAATGTGGTCTAATAATCTGGTATTAAATCCTTAAGAG

#### 2334/2682 FIGURE 2124

MFTIKLLLFIVPLVISSRIDQDNSSFDSLSPEPKSRFAMLDDVKILANGLLQLGHGLKDFVHKTKGQINDIFQKL NIFDQSFYDLSLQTSEIKEEEKELRRTTYKLQVKNEEVKNMSLELNSKLESLLEEKILLQQKVKYLEEQLTNLIQ NQPETPEHPEVTSLKTFVEKQDNSIKDLLQTVEDQYKQLNQQHSQIKEIENQLRRTSIQEPTEISLSSKPRAPRT TPFLQLNEIRNVKHDGIPAECTTIYNRGEHTSGMYAIRPSNSQVFHVYCDVISGSPWTLIQHRIDGSQNFNETWE NYKYGFGRLDGEFWLGLEKIYSIVKQSNYVLRIELEDWKDNKHYIEYSFYLGNHETNYTLHLVAITGNVPNAIPE NKDLVFSTWDHKAKGHFNCPEGYSGGWWWHDECGENNLNGKYNKPRAKSKPERRRGLSWKSQNGRLYSIKSTKML IHPTDSESFE

#### 2335/2682 FIGURE 2125

GTGGCTTACGAGTACACGGAAGCCGAGGACAAGAGCATCCGGCTCGGCTTGTTTCTCATCATCTCCGGCGTCGTG TCGCTCTTCATCTTCGGCTTCTGCTGGCTGAGTCCCGCGCTGCAGGATCTGCAAGCCACGGAGGCCAATTGCACG GTGCTGTCGGTGCAGCAGATCGGCGAGGTGTTCGAGTGCACCTTCACCTGTGGCGCCGACTGCAGGGGCACCTCG CAGTACCCCTGCGTCCAGGTCTACGTGAACAACTCTGAGTCCAACTCTAGGGCGCTGCTGCACAGCGACGACGACCAC ATGAATTGGCAACAGTACTGGAAAGATGAGATTGGTTCCCAGCCATTTACTTGCTATTTTAATCAACATCAAAGA CCAGATGATGTGCTTCTGCATCGCACTCATGATGAGATTGTCCTCCTGCATTGCTTCCTCTGGCCCCTGGTGACA TTTGTGGTGGGCGTTCTCATTGTGGTCCTGACCATCTGTGCCAAGAGCTTGGCGGTCAAGGCCGGAAGCCATGAAG  ${\tt AAGCGCAAGTTCTCT} \underline{{\tt TAA}} {\tt AGGGGAAGGAGGCTTGTAGAAAGCAAAGTACAGAAGCTGTACTCATCGGCACGCGTC}$ GTGGCAACAGAACAGGCACAACTGGAAGACTTGGAACCTCAAAGCTTGTATTCCATCTGCTGTAGCAATGGCTA ACAGTATATTATTTGTACAGTGTAGTATACAAACCATTATGATTTATGCTACTTAAAAATATTAAAATAGAGTGG GGGTCTCATTTGCTTCTGCTAGGTTAAACTTTTACTTGACAACAAGGATTCCTGCT

## 2336/2682 FIGURE 2126

 $\label{thm:maklrvayeyteaedks} $$ MAKLRVAYEYTEAEDKSIRLGLFLIISGVVSLFIFGFCWLSPALQDLQATEANCTVLSVQQIGEVFECTFTCGAD$$ CRGTSQYPCVQVYVNNSESNSRALLHSDEHQLLTNPKCSYIPPCKRENQKNLESVMNWQQYWKDEIGSQPFTCYFNQHQRPDDVLLHRTHDEIVLLHCFLWPLVTFVVGVLIVVLTICAKSLAVKAEAMKKRKFS$ 

#### 2337/2682 FIGURE 2127

ACTTTGCGCCTCATTGGAGAGCACCATGATGGGGTCTCCAAGGCCAACTTCTCCATCGGTCCCATGATGCAAGAC  ${\tt CGTAGGTTCTCTGCAGGGCCCAAGGTCAACGGAACATTCCAGGCCGACTTTCCTCTGGGCCCTGCCACCGGA}$ GGAACCTACAGATGCTTCGGCTCTTTCCGTGACTCTCCATACGAGTGGTCAAACTCGAGTGACCCACTGCTTGTT TCTGTCACAGGAAACCCTTCAAATAGTTGGCCTTCACCCACTGAACCAAGCTCCGAAACCGGTAACCCCATACAC CTGCATGTTCTGATTGGGACCTCAGTGGTCATCATCCTCTTCATCCTCCTCTTCTTCTTCTCCTTCATCGCTGG TGCTGCAACAAAAAAATGCTGTTGTAATGGACCAAGAGCCTGCAGGGAACAGAACAGTGAACAGGGAGGACTCT  $\verb|CCTTCTCAGAGGCCCAAGACACCCCCAACAGATATCATCGTGTACACGGAACTTCCAAATGCTGAGCCC| \textbf{TGA} \\ \texttt{TCC}$ AAAGTTGTCTCCTGCCCATGAGCACCACAGTCAGGCCTTGAGGGGATCTTCTAGGGAGACAACAGCCCTGTCTCA AAACTGGGTTGCCAGCTCCAATGTACCAGCAGCTGGAATCTGAAGGCGTGAGTCTGCATCTTAGGGCATCGCTCT AAACACACTCCTTTGCTTAGCCCACAATTCTCCATTTCACTTGACCCCTGCCCACCTCCCAACCTAACTGGCTT ACTTCCTAGTCTACTTGAGGCTGCAATCACACTGAGGAACTCACAATTCCAAACATACAAGAGGCTCCCTCTTAA CACGGCACTTAGACACGTGCTGTTCCACCTTCCCTCATGCTGTTCCACCTCCCCTCAGACTAGCTTTCAGCCTTC TGTCAGCAGTAAAACTTATATTTTTTAAAATAATTTCAATGTAGTTTTCCCTCCTTCAAATAAACATGTCTGC CCTCAAAAAAAA

#### 2338/2682 FIGURE 2128

MSLMVVSMACVGFFLLQGAWPHEGVHRKPSLRAHPGPLVKSEETVILQCWSDVRFEHFLLHREGKFKDTLRLIGE HHDGVSKANFSIGPMMQDLAGTYRCYGSVTHSPYQLSAPSDPLDIVITGLYEKPSLSAQPGPTVLAGESVTLSCS SRSSYDMYHLSREGEAHERRFSAGPKVNGTFQADFPLGPATHGGTYRCFGSFRDSPYEWSNSSDPLLVSVTGNPS NSWPSPTEPSSETGNPIHLHVLIGTSVVIILFILLLFFLLHRWCCNKKNAVVMDQEPAGNRTVNREDSDEQDPQE VTYAQLNHCVFTQRKITHPSQRPKTPPTDIIVYTELPNAEP

## 2339/2682 FIGURE 2129

## 2340/2682 FIGURE 2130

 ${\tt MACPLDQAIGLLVAIFHKYSGREGDKHTLSKKELKELIQKELTIGSKLQDAEIARLMEDLDRNKDQEVNFQEYVT} \\ {\tt FLGALALIYNEALKG}$ 

## 2341/2682 FIGURE 2131A

GAGCAGATTCCTACTGTTCTTAAAGGACAGTAATGCCTTTTGAGTCTGGTCTGAAGAACATAACAGGTCTGTGAT CAGAAGTAGGTTGCATCTCTCAACTTTAATTTCCTTAGCTATACCTGTAGGGATGACTTAAGCCTAGGGGAGC TCCTATATTTGGGAAGCTTGTGCACAGGGAAGCCTTAAATGATGGTGCCTGCAGATTGGATCTAGTAGAAATTAG GTCCTTGGGCATGCTTGGGGAACCTCTCAGTGACCTCAGGTGAACTTGTTGCTCGTAGAGCCAAGAGGCGA AGTTAATTCAGGCCTTCCTTTTGACCACTGCCCCCTCTTCCTAGGCCTTGGCCCCTCCACCAGAGGAAGGTGCTG  $\texttt{CCACGTGTCTGCTCCTGAACCTCCAGGTTTCTGCTACGTTGCCCC} \underline{\textbf{ATG}} \texttt{GAGGACACCCCCCTCACTCAGC}$ AACCAGGACAGTGAGGAGGCTGACAGCATCCCTCGGCCCTACCGTTGTCAGCAGTGTGGGCGGGGCTACCGTCAC  $\tt CCCGGGAGCCTGGTTAACCATCGTCGGACCCACGAGACTGGCCTTTTCCCCTGTACCACCTGTGGCAAGGACTTC$ TCCAATCCCATGGCTCTCAAGAGCCATATGAGGACACATGCTCCTGAGGGCCGCCGCAGGCCACAGGCCCCCACGC  $\tt CCCAAGGAAGCCACTCCACACCTCCAGGGTGAGACGGTGTCCACTGACTCCTGGGGCCAAAGGCTTGGCTCTAGT$ GAAGGCTGGGAAAACCAGACAAAACATACAGAAGAGACACCTGACTGTGAATCTGTACCTGACCCCAGGGCAGCT TCGGGTACGTGGGAAGATCTGCCCACCAGACAAAGAGAAGGCTTGGCAAGCCACCCAGGTCCTGAGGATGGTGCA AGCCACACGCTGGGCATCTACCCCTGTGCCATCTGTTTCAAGGAGTTCTCTAACCTCATGGCTCTGAAGAACCAC TCTCGACTGCCAGTATCGGCCTTACCACTGTCCCCACTGCCCCGTGTCTTCCGGCTCCCCCGGGAGCTG CTGGAACACCAGCAGTCCCATGAGGGTGAAAGGCAGGAGCCACGCTGGGAGGAGAAAGGGATGCCCACCAAT GGGCACACAGATGAGAGCAGCCAGGACCAGCTCCCCAGTGCACAGATGCTGAATGGCTCTGCGGAGCTCAGCACC TCTGGGGAGCTGGAGGACAGTGGCCTGGAGGAATACCGGCCTTTCCGCTGTGGGGGACTGTGGCCGTACTTACCGC CTGTTCAATGCGGCTGCCCTCAAAAACCATGTGCGGGCTCATCACAGGCCCAGGCAAGGAGTTGGGGAAAATGGG CAGCCATCAGTCCCACCAGCTCCCCTGCTGCTGGCTGAGACCACCACAAAGAGGAAGAGGACCCCACCACCACC CTGGACCATCGGCCCTATAAGTGCAGTGAGTGTGGTCGTGCTTACCGCCACCGGGGGAGCCTGGTGAACCATCGC CACAGCCATCGGACTGGAGAGTACCAGTGCTCACTCTGTCCCCGCAAGTACCCCAATCTCATGGCCCTGCGCAAC CACGTGCGGGTACATTGCAAGGCTGCTCGCCGAAGTGCAGACATCGGGGCTGAGGGTGCCCCCAGCCACCTCAAG GTAGAACTCCCGCCTGACCCAGTGGAGGCAGAGGCAGCCCCGCACACAGATCAGGACCATGTGTGCAAACATGAA GAAGACGCTGAGAGCCTTGAACGTCATGGCCTGACTCATGGGGCAGGGGAAAAGGAAAATAGCAGAACAGAGACC  ${\tt ACAATGTCACCTCCTAGGGCCTTTGCCTGCCGAGACTGTGGAAAGAGCTATCGCCACTCAGGCAGCCTTATCAAC}$ CACAGGCAGACCCACCAGACAGGAGACTTCAGTTGTGGGGGCCTGTGCCAAGCACTTCCACACCATGGCTGCCATG AGAGAAGCCAAACTCCTGGCAGCGGAGAGCTGGACCCGGGAGCTAGAAGACAATGAAGGCCTGGAGTCTCCCCAA GACCCTTCAGGGGAAAGTCCTCATGGGGCTGAAGGCAACCTGGAAAGTGATGGGGACTGTTTGCAGGCTGAATCT GAAGGGGACAAATGTGGGCTTGAGAGGGATGAGACCCATTTCCAGGGTGATAAAGAGAGCGGAGGCACTGGGGAA AATGCTGTCACTGGCTGGCAGGCTGGGGCCGCTCACACATGCTCTGACTGTGGGCATTCTTTCCCCCATGCCACT GGCCTGCTGAGCCACAGGCCTGCCACCAGGCATCTATCAGTGCTCCCTCTGCCCGAAGGAGTTTGACTCT ACTGAGGGCTCAGAGGAGGGGGGGAAGAGGAAGGAGGGCAGCCCCTGCACGCAGTCCACCACTGCAG  $\tt CTCTCGGAAGCAGAGCTGCTGAATCAGCTGCAGCGGGAGGTGGAAGCGCTGGACAGTGCAGGGTATGGGCACATC$ TGTGGCTGCTGTGGTCAGACCTACGATGACCTGGGGAGCCTGGAGCGTCACCACAAAGTCAGAGTTCTGGGACT ACTGCAGACAAGGCTCCCAGCCCCTTGGGAGTGGCAGGTGATGCCATGGAGATGGTCGTGGACAGTGTCTTGGAG GACATAGTGAATTCTGTCTCTGGAGAGGGTGGAGATGCCAAGTCTCAAGAGGGAGCAGCCCCCTTGGGAGAC AGCCTCTGCATCCAGGGTGGGGAAAGTTTGTTGGAGGCTCAGCCCCGCCCCTTCCGCTGCAACCAGTGTGGCAAG

## 2342/2682 FIGURE 2131B

ACCTATCGCCATGGGGGCAGCCTGGTGAACCACCGCAAGATCCACCAGACTGGAGACTTTCTCTGCCCTGTCTGC TCCCGCTGCTACCCCAACCTGGCTGCCTACCGTAATCATCTGCGGAACCACCCTCGCTGCAAAGGCTCTGAGCCC AAGCCCCAGCACATGGCAGAGGAGGGGCCGGGGCAAGCAGAAGTCGAGAAGCTCCAGGAAGAACTTAAAGTGGAG TGCTCCAAGGGCTTCTCAAACCTCATGTCCCTCAAGAACCACCGGCGCATCCATGCAGATCCCCGACGTTTCCGC CACGCCGGCAGCCTCCTGAACCACCGGCGCAGCCACGAGACGGGCCAGTACAGCTGCCCCACCTGCCCCAAGACC TACTCCAACCGCATGGCCCTGAAGGACCACCAGAGGCTGCACTCAGAGAATCGGCGGCGACGGGCTGGACGGTCC AGGCGCACAGCTGTGCGTTGCGCCCTCTGTGGCCGCAGCTTCCCTGGCCGGGGATCTTTGGAGCGGCACCTGCGG GAGCATGAGGAGACAGAAAGGGAGCCAGCCAATGGCCAGGGAGGCCTGGATGGCACAGCGGCCAGTGAGGCGAAC CTGACTGGCAGCCAGGGACTAGAGACCCAATTGGGTGGTGCTGAGCCAGTACCCCACTTGGAGGATGGAGTCCCA AGGCCAGGGGAGCGCAGTCAGAGCCCCATCAGGGCAGCAAGCTCAGAAGCCCCAGAGCCACTGTCCTGGGGTGCA  ${\tt GGGAAGGCAGGTGGCCGGTAGGTGGGGGACTGGGGAATCATAGTGGAGGCTGGGTTCCTCAGTTCCTAACT}$  ${\tt AGGTCAGAGGAGCCAGAGGACAGTGTCCACAGGAGTCCTTGCCACGCTGGTGACTGCCAGCTCAATGGACCTACT}$  $\tt CTGAGTCACATGGATAGCTGGGACAACAGAGACAACAGCTCTCAGCTGCAGCCAGGGAGCCACTCCTCTTGCAGC$ CTGCTCTGCTCCAAGGAGTTCTTAAATCCTGTGGCCACAAAGAGCCACAGCCACAACCACATAGACGCCCAGACC GGCCACAGCCAGGTGCCAGCCCAGATGGAGGAGGCCAGAGATCCCAAAGCCGGGACTGGGGAGCAGGTGGTT CTCCCTGGTCAAGGGAAAGCCCAGGAGGCCCCATCAGAAACCCCCAGAGGCCCAGGAGAGAGTGTGGAGAGAGCC AGGGGAGGACAAGCGGTGACGTCCATGGCGGCTGAGGACAAGGAGCGGCCCTTCCGCTGCACCCAGTGCGGGCGC TCCTACCGCCATGCTGGCAGCCTGCTGAACCACCAGAAGGCCCACACCACAGGGTTGTACCCGTGCTCCCTCTGT CCCAAACTTCTCCCTAACCTGCTGTCTCTTAAGAACCACAGGACCCACACGGACCCCAAGCGCCACTGCTGC  ${\tt AGCATCTGTGGCAAGGCCTTTCGGACAGCTGCCCGGCTGGAGGGCCACGGGCGGTCCATGCACCCCGGGAGGGG}$ GAGGAGTGGACGGTGGCCGCTCCGGTAGGGGGCATGAAGGGTCCCAGGAGGAGGTGGGCACACAGTGGAGGGG GGCTTGGCTATGGGGTGAGAGAAGTAGCTTGAGGATGTGCTGAGCTGAGCACCCGCAAGTCAGGTATAACAAATA GCAGGGTGGGTTGGGCAGCACGTGGGGGGGTGGTCAGGCCGAGGCTGCTACCTGGGCTCCTCCATTACACTGTAG  ${\tt CCAGAATGGAATGGTCTTTCTGTTCAGGGGAAGGTCACTGGGTACCCCCTGGCTGCTGTGTCTGGAAACCCTCCT}$ GAGTCAGCCAGTAAAGTAATGACTTCCAGAGAAAAAGAGGAAGCCATTGGTTTGGTCTAGGTTCCATTCTTTCCT  ${\tt GGAGCAGGCCGGGTGCCAGGGAACAAGGGATGGGGCATGGGCTCCACGGCTTCCCTGCTGACTTGGCCACGGAAA}$ ACTAGACCTCTGGTCCTTCCCTGTCAGTGTTGCTCCCATCTCTTCTCTAACCTTTATTCAGCCCCTTTTCCCTCT GCTGCCAACGGCCTTTTTAGGATCCAACGAAACCACCCTTTCTACCTGCGCACCCTGCCACCCTCTGCACACCTT TAACTGGAGGACTGAGTCACAGATAATTGTTTCCTTGAAGTCCAGGCCCAGCTGCAGCAACAACAGTCATTAGCC CAGGGAGTGGGGCCGGCCGGTTCCCTCAGCAGGACCTGGGCTGGCCTCTCCACCTCCCCTAGTAGAGGCGGACCCA TTCCATCTAGTGGCCACCGAGGGTGGGTGGCCCTGAGATGGTGGGCCCTTGACAGGCCTTGTCAGAGCAGAGGGC AGGTGGGAGTCACCTGAAAGCTGAAGGAATGGCTTTAAGGATAGAAGATTTCTCATGACCTCAAGGGATATGAGG GAGGAGCCAGTTTGCCAGGGCTGGGAAAATAATTAGGAGGCCTAGAATCCCTGTTCTCATCTGGGCCTCCGGGGC  ${\tt CAGGGGCAGGGGAATGGCCTGCAGGGCTGGGAGGGGTACACGCTGTGCGGGGTCTGCCCCTCAGTTGGTGACCT}$  $\tt CCTCTCTCTCCCCCCAGGAGCCCCAGTGGCACCAGTGACGGGCAGAGGGGACTTGCCATTGCCCCCTCCACCC$ ACCCCCACGACCCCACTCCTGGATCCTTCACCCCAGTGGCCTGCAGACCTCAGCTTCTCCCTCTGAACTTCAAGT

## 2343/2682 FIGURE 2131C.

## 2344/2682 FIGURE 2132

MEDTPPSLSCSDCQRHFPSLPELSRHRELLHPSPNQDSEEADSIPRPYRCQQCGRGYRHPGSLVNHRRTHETGLF PCTTCGKDFSNPMALKSHMRTHAPEGRRRHRPPRPKEATPHLQGETVSTDSWGQRLGSSEGWENQTKHTEETPDC ESVPDPRAASGTWEDLPTRQREGLASHPGPEDGADGWGPSTNSARAPPLPIPASSLLSNLEQYLAESVVNFTGGQ EPTQSPPAEEERRYKCSQCGKTYKHAGSLTNHRQSHTLGIYPCAICFKEFSNLMALKNHSRLHAQYRPYHCPHCP  ${\tt RVFRLPRELLEHQQSHEGERQEPRWEEKGMPTTNGHTDESSQDQLPSAQMLNGSAELSTSGELEDSGLEEYRPFR}$  ${\tt CGDCGRTYRHAGSLINHRKSHQTGVYPCSLCSKQLFNAAALKNHVRAHHRPRQGVGENGQPSVPPAPLLLAETTH}$ KEEEDPTTTLDHRPYKCSECGRAYRHRGSLVNHRHSHRTGEYQCSLCPRKYPNLMALRNHVRVHCKAARRSADIG AEGAPSHLKVELPPDPVEAEAAPHTDQDHVCKHEEEATDITPAADKTAAHICSICGLLFEDAESLERHGLTHGAG EKENSRTETTMSPPRAFACRDCGKSYRHSGSLINHRQTHQTGDFSCGACAKHFHTMAAMKNHLRRHSRRRSRRHR  $\tt KRAGGASGGREAKLLAAESWIRELEDNEGLESPQDPSGESPHGAEGNLESDGDCLQAESEGDKCGLERDETHFQG$ DKESGGTGEGLERKDASLLDNLDIPGEEGGGTHFCDSLTGVDEDQKPATGQPNSSSHSANAVTGWQAGAAHTCSD CGHSFPHATGLLSHRPCHPPGIYQCSLCPKEFDSLPALRSHFQNHRPGEATSAQPFLCCLCGMIFPGRAGYRLHR RQAHSSSGMTEGSEEEGEEEGVAEAAPARSPPLQLSEAELLNQLQREVEALDSAGYGHICGCCGQTYDDLGSLER  $\verb|HHQSQSSGTTADKAPSPLGVAGDAMEMVVDSVLEDIVNSVSGEGGDAKSQEGAGTPLGDSLCIQGGESLLEAQPR|$ PFRCNQCGKTYRHGGSLVNHRKIHQTGDFLCPVCSRCYPNLAAYRNHLRNHPRCKGSEPQVGPIPEAAGSSELQV GPIPEGGSNKPQHMAEEGPGQAEVEKLQEELKVEPLEEVARVKEEVWEETTVKGEEIEPRLETAEKGCQTEASSE RPFSCEVCGRSYKHAGSLINHRQSHQTGHFGCQACSKGFSNLMSLKNHRRIHADPRRFRCSECGKAFRLRKQLAS HQRVHMERRGGGGTRKATREDRPFRCGQCGRTYRHAGSLLNHRRSHETGQYSCPTCPKTYSNRMALKDHQRLHSE NRRRAGRSRRTAVRCALCGRSFPGRGSLERHLREHEETEREPANGQGGLDGTAASEANLTGSQGLETQLGGAEP VPHLEDGVPRPGERSQSPIRAASSEAPEPLSWGAGKAGGWPVGGGLGNHSGGWVPQFLTRSEEPEDSVHRSPCHA GDCQLNGPTLSHMDSWDNRDNSSQLQPGSHSSCSQCGKTYCQSGSLLNHNTNKTDRHYCLLCSKEFLNPVATKSH SHNHIDAQTFACPDCGKAFESHQELASHLQAHARGHSQVPAQMEEARDPKAGTGEDQVVLPGQGKAQEAPSETPR GPGESVERARGGQAVTSMAAEDKERPFRCTQCGRSYRHAGSLLNHQKAHTTGLYPCSLCPKLLPNLLSLKNHSRT HTDPKRHCCSICGKAFRTAARLEGHGRVHAPREGPFTCPHCPRHFRRRISFVQHQQQHQEEWTVAGSGRGHEGSQ EEVGTQWRGKSSPKVGGGARSERREPRGF

### 2345/2682 FIGURE 2133A

GCTACCCCTGTCTGGACCTTGGTGCCATGTTGCTCTACACCCTGACCTTCTGGCTCCTGCTGCGCCAGTTTGTGA AAGAGAAGCTGCTGAAGTGGGCAGAGTCTCCAGCTGCGCTGACGGAGGTCACCGTGGCAGACACAGAGCCTACGC TCTGCCTCACCCTCTTCCAGGTCTACTACAGCCTGTGGCGGAAGCTGCTCAAGGCCTTCTGGTGGCTCGTGGTGG CCTACACCATGCTGGTCCTCATCGCCGTCTACACCTTCCAGTTCCAGGACTTCCCTGCCTACTGGCGCAACCTCA CTGGCTTCACCGACGAGCAGCTGGGGGACCTGGGCCTGGAGCAGTTCAGCGTATCCGAGCTCTTCTCCAGCATCC TGGTGCCCGGCTTCTTCCTCCTGGCCTGCATCCTGCAGCTGCACTACTTCCACAGGCCCTTCATGCAGCTCACCG CACTGCTGCGGGAGGAGCAGCAGCATCAGCAGCAGCAGGAGGAGGAGGAGGAGGAGGACTCCAGGGACG AGCGCCTGCTGGAGCTGGCAGCCGGCTTCTCGGACGTCCTCTCACGCGTGCAGGTGTTCCTGCGGCGGCTGCTGG AGCTTCACGTTTTCAAGCTGGTGGCCCTGTACACCGTCTGGGTGGCCCTGAAGGAGGTGTCGGTGATGAACCTGC GGACCTGCGTCATCATCGTGTGTAAGATGCTGTACCAGCTCAAGGTTGTCAACCCCCAGGAGTATTCCAGCAACT GCACCGAGCCCTTCCCCAACAGCACCAACTTGCTGCCCACGGAGATCAGCCAGTCCCTGCTGTACCGGGGGCCCG TGGACCCTGCCAACTGGTTTGGGGTGCGGAAAGGGTTCCCCAACCTGGGCTACATCCAGAACCACCTGCAAGTGC TGCTGCTGCTGGTATTCGAGGCCATCGTGTACCGGCGCCAGGAGCACTACCGCCGGCAGCACCAGCTGGCCCCGC TGCCTGCCCAGGCCGTGTTTGCCAGCGGCACCCGCCAGCAGCTGGACCAGGATCTGCTCGGCTGCCTCAAGTACT TCATCAACTTCTTCTTCTACAAATTCGGGCTGGAGATCTGCTTCCTGATGGCCGTGAACGTGATCGGGCAGCGCA TGAACTTTCTGGTGACCCTGCACGGTTGCTGGCTGGTGGCCATCCTCACCCGCAGGCACCGCCAGGCCATTGCCC GCCTCTGGCCCAACTACTGCCTCTTCCTGGCGCTGTTCCTGCTGTACCAGTACCTGCTGTGCCTGGGGATGCCCC CGGCCCTGTGCATTGATTATCCCTGGCGCTGGAGCCGGGCCGTCCCCATGAACTCCGCACTCATCAAGTGGCTGT ACCTGCCTGATTTCTTCCGGGCCCCCAACTCCACCAACCTCATCAGCGACTTTCTCCTGCTGCTGCGCCCTCCC AGCCGCTGCGGGGGGGGCCCAACCCCGTGCCCAACTTTATCCACTGCAGGTCCTACCTTGACATGCTGAAGGTGG CCGTCTTCCGATACCTGTTCTGGCTGGTGCTGGTGGTGTTTTGTCACGGGGGCCACCCGCATCAGCATCTTCG GGCTGGGCTACCTGCTGGCCTGCTTCTACCTGCTGCTCTTCGGCACGGCCCTGCTGCAGAGGGACACACGGGCCC GCCTCGTGCTGTGGGACTGCCTCATTCTGTACAACGTCACCGTCATCATCTCCAAGAACATGCTGTCGCTCCTGG CCTGCGTCTTCGTGGAGCAGATGCAGACCGGCTTCTGCTGGGTCATCCAGCTCTTCAGCCTTGTATGCACCGTCA TCTGGGACAGCGTCTGCTTCTTCCTGCTGCTGCAGCGCCGCGTCTTCCTTAGCCATTACTACCTGCACGTCA GGGCCGACCTCCAGGCCACCGCCCTGCTAGCCTCCAGGGGGCTTCGCCCTCTACAACGCTGCCAACCTCAAGAGCA TTGACTTCCACCGCAGGATAGAGGAGAAGTCCCTGGCCCAGCTGAAAAGACAGATGGAGCGTATCCGTGCCAAGC AGGAGAAGCACAGGCAGGGCCGGGTGGACCGCAGTCGCCCCCAGGACACCCTGGGCCCCAAGGACCCCGGCCTGG CAGTCATCCACTCCGGGGACTACTTCCTGTTTGAGTCCGACAGTGAGGAAGAGGAGGAGGCTGTTCCTGAAGACC AGGTGCAGCCAGCAGAGGGCCCCGAGGAGGCAGCCAGGCCGGAGCCATGTGGTGCAGAGGGTGCTGAGCACGG ACGGCACCATGAGCGACGTGCTGCGGGCAGAGCGCTACCTCCTCACACAGGAGCTCCTGCAGGGCGGCGAAGTGC ACAGGGGCGTGCTGGATCAGCTGTACACAAGCCAGGCCGAGGCCACGCTGCCAGGCCCCACCGAGGCCCCCAATG CCCCAAGCACCGTGTCCAGTGGGCTGGGCGCGGAGGAGCCACTCAGCAGCATGACAGACGACATGGGCAGCCCCC TGAGCACCGGCTACCACACGCGCAGTGGCAGTGAGGAGGCAGTCACCGACCCCGGGGAGCGTGAGGCTGGTGCCT CTCTGTACCAGGGACTGATGCGGACGGCCAGCGAGCTGCTCCTGGACAGGCGCCTGCGCATCCCAGAGCTGGAGG AGGCAGAGCTGTTTGCGGAGGGGCAGGGCCGGGCGCTGCGGCTGCTGCGGGCCGTGTACCAGTGTGTGGCCGCCC

#### 2346/2682 FIGURE 2133B

ACTCGGAGCTGCTCTCATCATCATCATCCTCAACCACATGGTCACGGCCTCCGGCGGCTCCCTGGTGCTGC CCGTGCTCGTCTTCCTGTGGGCCATGCTGTCGATCCCGAGGCCCAGCAAGCGCTTCTGGATGACGGCCATCGTCT TCACCGAGATCGCGGTGGTCGTCAAGTACCTGTTCCAGTTTGGGTTCTTCCCCTGGAACAGCCACGTGGTGCTGC GGCGCTACGAGAACAAGCCCTACTTCCCGCCCCGCATCCTGGGCCTGGAGAAGACTGACGGCTACATCAAGTACG ACCTGGTGCAGCTCATGGCCCTTTTCTTCCACCGCTCCCAGCTGCTGTGCTATGGCCTCTGGGACCATGAGGAGG ACTCACCATCCAAGGAGCATGACAAGAGCGGCGAGGAGGAGCAGGGAGCCGAGGAGGGGCCAGGGGTGCCTGCGG CCACCACCGAAGACCACATTCAGGTGGAAGCGAGGGTCGGACCCACGGACGCGACCCCAGAACCCCAAGTGGAGC CGGCAGCCATCGAAGCTGAGGACAGGGAGGAAGAAGAGGGGGGAGGAAGAGAAAGAGGCCCCCACGGGGAGAGAA AGGGCACATATCGGCCGCTACGGCGCTTCTTCCACGACATCCTGCACACCAAGTACCGCGCAGCCACCGACGTCT ATGCCCTCATGTTCCTGGCTGATGTTGTCGACTTCATCATCATCTTTTTGGCTTCTGGGCCTTTGGGAAGCACT CGGCGGCCACAGACATCACGTCCTCCCTATCAGACGACCAGGTACCCGAGGCTTTCCTGGTCATGCTGATCC AGTTCAGTACCATGGTGGTTGACCGCGCCCTCTACCTGCGCAAGACCGTGCTGGGCAAGCTGGCCTTCCAGGTGG CGCTGGTGCTGGCCATCCACCTATGGATGTTCTTCATCCTGCCCGCCGTCACTGAGAGGATGTTCAACCAGAATG TGGTGGCCCAGCTCTGGTACTTCGTGAAGTGCATCTACTTCGCCCTGTCCGCCTACCAGATCCGCTGCGGCTACC CCACCCGCATCCTCGGCAACTTCCTCACCAAGAAGTACAATCATCTCAACCTCTTCCTCTTCCAGGGGTTCCGGC AGCCCAAAGGGCAGAAGAAGAAGAAGATCGTCAAGTACGGCATGGGTGGCCTCATCATCCTCTTCCTCATCGCCA TCATCTGGTTCCCGCTGCTCTTCATGTCGCTGGTGCGCTCCGTGGTTGGGGTTGTCAACCAGCCCATCGATGTCA CCGTCACCCTCAAGCTGGGCGGCTATGAGCCGCTGTTCACCATGAGCGCCCAGCAGCCGTCCATCATCCCCTTCA CGGCCCAGGCCTATGAGGAGCTGTCCCGGCAGTTTGACCCCCAGCCGCTGGCCATGCAGTTCATCAGCCAGTACA GCCCTGAGGACATCGTCACGGCGCAGATTGAGGGCAGCTCCGGGGGCGCTGTGGCGCATCAGTCCCCCCAGCCGTG CCCAGATGAAGCGGGAGCTCTACAACGGCACGGCCGACATCACCCTGCGCTTCACCTGGAACTTCCAGAGGGACC TGGCGAAGGGAGCACTGTGGAGTATGCCAACGAGAAGCACATGCTGGCCCTGGCCCCCAACAGCACTGCACGGC GGCAGCTGGCCAGCCTCCTCGAGGGCACCTCGGACCAGTCTGTGGTCATCCCCAATCTCTTCCCCAAGTACATCC GTGCCCCCAACGGGCCCGAAGCCAACCCTGTGAAGCAGCTGCAGCCCAATGAGGAGGCCGACTACCTCGGCGTGC GTATCCAGCTGCGGAGGGAGCAGGGTGCGGGGGCCACCGGCTTCCTCGAATGGTGGGTCATCGAGCTGCAGGAGT GCCGGACCGACTGCAACCTGCTGCCCATGGTCATTTTCAGTGACAAGGTCAGCCCACCGAGCCTCGGCTTCCTGG CTGGCTACGGCATCATGGGGCTGTACGTGTCCATCGTGCTGGTCATCGGCAAGTTCGTGCGCGGATTCTTCAGCG TGGTGCGGGAGACTCGGGAGCTGGAGGAGGAGGAGTTGTACGCCAAGCTCATCTTCCTCTACCGCTCACCGG AGACCATGATCAAGTGGACTCGTGAGAAGGAGTAGGAGCTGCTGCTGGCGCCCGAGAGGGAAGGAGCCGGCCTGC TGGGCAGCGTGGCCACAAGGGCGGCACTCCTCAGGCCGGGGGAGCCACTGCCCCGTCCAAGGCCGCCAGCTGTG ATGCATCCTCCCGGCCTGAGCCCTGATGCTGCTGTCAGAGAAGGACACTGCGTCCCCACGGCCTGCGTGGC 

### 2347/2682 FIGURE 2134

MDLRPELPTTLGPVSLRQLGLEHTRYPCLDLGAMLLYTLTFWLLLRQFVKEKLLKWAESPAALTEVTVADTEPTR TQTLLQSLGELVKGVYAKYWIYVCAGMFIVVSFAGRLVVYKIVYMFLFLLCLTLFQVYYSLWRKLLKAFWWLVVA YTMLVLIAVYTFQFQDFPAYWRNLTGFTDEQLGDLGLEQFSVSELFSSILVPGFFLLACILQLHYFHRPFMQLTD RLLELAAGFSDVLSRVQVFLRRLLELHVFKLVALYTVWVALKEVSVMNLLLVVLWAFALPYPRFRPMASCLSTVW TCVIIVCKMLYQLKVVNPQEYSSNCTEPFPNSTNLLPTEISQSLLYRGPVDPANWFGVRKGFPNLGYIQNHLQVL LLLVFEAIVYRRQEHYRRQHQLAPLPAQAVFASGTRQQLDQDLLGCLKYFINFFFYKFGLEICFLMAVNVIGQRM NFLVTLHGCWLVAILTRRHRQAIARLWPNYCLFLALFLLYQYLLCLGMPPALCIDYPWRWSRAVPMNSALIKWLY LPDFFRAPNSTNLISDFLLLLCASQQWQVFSAERTEEWQRMAGVNTDRLEPLRGEPNPVPNFIHCRSYLDMLKVA VFRYLFWLVLVVVFVTGATRISIFGLGYLLACFYLLLFGTALLQRDTRARLVLWDCLILYNVTVIISKNMLSLLA CVFVEQMQTGFCWVIQLFSLVCTVKGYYDPKEMMDRDQDCLLPVEEAGIIWDSVCFFFLLLQRRVFLSHYYLHVR ADLQATALLASRGFALYNAANLKSIDFHRRIEEKSLAQLKRQMERIRAKQEKHRQGRVDRSRPQDTLGPKDPGLE PGPDSPGGSSPPRRQWWRPWLDHATVIHSGDYFLFESDSEEEEEAVPEDPRPSAQSAFQLAYQAWVTNAQAVLRR  ${\tt RQQEQEQARQEQAGQLPTGGGPSQEVEPAEGPEEAAAGRSHVVQRVLSTAQFLWMLGQALVDELTRWLQEFTRHH}$ GTMSDVLRAERYLLTQELLQGGEVHRGVLDQLYTSQAEATLPGPTEAPNAPSTVSSGLGAEEPLSSMTDDMGSPL STGYHTRSGSEEAVTDP.GEREAGASLYQGLMRTASELLLDRRLRIPELEEAELFAEGQGRALRLLRAVYQCVAAH SELLCYFIIILNHMVTASAGSLVLPVLVFLWAMLSIPRPSKRFWMTAIVFTEIAVVVKYLFQFGFFPWNSHVVLR  ${\tt RYENKPYFPPRILGLEKTDGYIKYDLVQLMALFFHRSQLLCYGLWDHEEDSPSKEHDKSGEEEQGAEEGPGVPAA}$ TTEDHIQVEARVGPTDGTPEPQVELRPRDTRRISLRFRRKKEGPARKGAAAIEAEDREEEEGEEEKEAPTGREK  ${\tt RPSRSGGRVRAAGRRLQGFCLSLAQGTYRPLRRFFHDILHTKYRAATDVYALMFLADVVDFIIIIFGFWAFGKHS}$ AATDITSSLSDDQVPEAFLVMLLIQFSTMVVDRALYLRKTVLGKLAFQVALVLAIHLWMFFILPAVTERMFNQNV VAQLWYFVKCIYFALSAYQIRCGYPTRILGNFLTKKYNHLNLFLFQGFRLVPFLVELRAVMDWVWTDTTLSLSSW MCVEDIYANIFIIKCSRETEKKYPQPKGQKKKKIVKYGMGGLIILFLIAIIWFPLLFMSLVRSVVGVVNQPIDVT VTLKLGGYEPLFTMSAQQPSIIPFTAQAYEELSRQFDPQPLAMQFISQYSPEDIVTAQIEGSSGALWRISPPSRA QMKRELYNGTADITLRFTWNFQRDLAKGGTVEYANEKHMLALAPNSTARRQLASLLEGTSDQSVVIPNLFPKYIR APNGPEANPVKQLQPNEEADYLGVRIQLRREQGAGATGFLEWWVIELQECRTDCNLLPMVIFSDKVSPPSLGFLA GYGIMGLYVSIVLVIGKFVRGFFSEISHSIMFEELPCVDRILKLCQDIFL

#### 2348/2682 FIGURE 2135A

GGCGAGCTAAGCCGGAGGATGTGCAGCTGCGGCGGCGGCGCCGGCTACGAAGAGGACGGGGACAGGCGCCGTGCG AACCGAGCCCAGCCGGGGGGACGCCGGGCAGGCCGGGAGCCCGGACTCGTCTGCCGCCGCCGTCGTCG CCGTCGTGCCGGCCCCGCGCGCGCGCGAGCGGGAGCCGCCGCCACCTCGCGCCCGAGCCGCCGCTAGC GCCTCGCGGCGCTAGGGCGGGCTGGCCTCCGCGGGCGGGGCAGCGGGCTGAGGGCGCGCGGGGCCTGCGGCGGC GCGTGCTGCTCGGGCTCGTGCTGGGCTTCGTGCTGGCCTCGTGCTCCTGCCCCGGGCTTCCGAGCTGAAGC GAGCGGGCCCACGGCGCCAGCCCCGAGGGCTGCCGGTCCGGGCAGGCGGCGGCTTCCCAGGCCGGCGGGG CGCGCGGCGATGCGCGCGGGGCGCAGCTCTGGCCCCCGGCTCGGACCCAGATGGCGGCCCGCGCGACAGGAACT TTCTCTTCGTGGGAGTCATGACCGCCCAGAAATACCTGCAGACTCGGGCCGTGGCCGCCTACAGAACATGGTCCA AGACAATTCCTGGGAAAGTTCAGTTCTTCTCAAGTGAGGGTTCTGACACATCTGTACCAATTCCAGTAGTGCCAC TACGGGGTGTGGACGACTCCTACCCGCCCCAGAAGAAGTCCTTCATGATGCTCAAGTACATGCACGACCACTACT TGGACAAGTATGAATGGTTTATGAGAGCAGATGATGACGTGTACATCAAAGGAGACCGTCTGGAGAACTTCCTGA GGAGTTTGAACAGCAGCGAGCCCCTCTTTCTTGGGCAGACAGGCCTGGGCACCACGGAAGAAATGGGAAAACTGG CCCTGGAGCCTGGTGAGAACTTCTGCATGGGGGGGCCTGGCGTGATCATGAGCCGGGAGGTGCTTCGGAGAATGG TGCCGCACATTGGCAAGTGTCTCCGGGAGATGTACACCACCCATGAGGACGTGGAGGTGGGAAGGTGTCCCGGA GGTTTGCAGGGGTGCAGTGTGTCTGGTCTTATGAGATGCAGCAGCTTTTTTATGAGAATTACGAGCAGAACAAAA AGGGGTACATTAGAGATCTCCATAACAGTAAAATTCACCAAGCTATCACATTACACCCCAACAAAAACCCCACCCT ACCAGTACAGGCTCCACAGCTACATGCTGAGCCGCAAGATATCCGAGCTCCGCCATCGCACAATACAGCTGCACC CCTTCATGAGGTTTCAGCCCCGCCAGCGAGAGGAGATTCTGGAATGGGAGTTTCTGACTGGAAAATACTTGTATT CGGCAGTTGACGGCCAGCCCCTCGAAGAGGAATGGACTCCGCCCAGAGGGAAGCCTTGGACGACATTGTCATGC AGGTCATGGAGATGATCAATGCCAACGCCAAGACCAGAGGGGCGCATCATTGACTTCAAAGAGATCCAGTACGGCT ACCGCCGGGTGAACCCCATGTATGGGGCTGAGTACATCCTGGACCTGCTGCTTCTGTACAAAAAGCACAAAGGGA AGAAAATGACGGTCCCTGTGAGGAGGCACGCGTATTTACAGCAGACTTTCAGCAAAATCCAGTTTGTGGAGCATG TGAAGAAGCTCGTCCCCTTTCAGCTCCCTGGGTCGAAGAGTGAGCACAAAGAACCCAAAGATAAAAAGATAAACA TACTGATTCCTTTGTCTGGGCGTTTCGACATGTTTGTGAGATTTATGGGAAACTTTGAGAAGACGTGTCTTATCC CCAATCAGAACGTCAAGCTCGTGGTTCTGCTTTTCAATTCTGACTCCAACCCTGACAAGGCCAAACAAGTTGAAC TGATGACAGATTACCGCATTAAGTACCCTAAAGCCGACATGCAGATTTTGCCTGTGTCTGGAGAGTTTTCAAGAG CCCTGGCCCTGGAAGTAGGATCCTCCCAGTTTAACAATGAATCTTTGCTCTTCTTCTGCGACGTCGACCTCGTCT TTACTACAGAATTCCTTCAGCGATGTCGAGCAAATACAGTTCTGGGCCAACAAATATATTTTCCAATCATCTTCA GCCAGTATGACCCAAAGATTGTTTATAGTGGGAAAGTTCCCAGTGACAACCATTTTGCCTTTACTCAGAAAACTG GGAGCCAGGAAGTAGGAGTAGTCCACGTCCACCATCCTGTCTTTTGTGATCCCAATCTTGACCCCAAACAGTACA  $\tt ATCCAAGTTACAGTAAAAGCAGCAATAATAATGGCTCAGTGAGGACAGCC\underline{TAA} TGTCCAGCTTTGCTGGAAAAGA$ CGTTTTTAATTATCTAATTTATTTTTCAAAAATTTTTTGTATGATCAGTTTTTGAAGTCCGTATACAAGGATATA TTTTACAAGTGGTTTTCTTACATAGGACTCCTTTAAGATTGAGCTTTCTGAACAAGAAGGTGATCAGTGTTTGCC TTTGAACACATCTTCTTGCTGAACATTATGTAGCAGACCTGCTTAACTTTGACTTGAAATGTACCTGATGAACAA AACTTTTTTAAAAAATGTTTTCTTTTGAGACCCTTTGCTCCAGTCCTATGGCAGAAAACGTGAACATTCCTGCA AAGTATTATTGTAACAAAACACTGTAACTCTGGTAAATGTTCTGTTGTGATTGTTAACATTCCACAGATTCTACC TTTTGTGTTTTTTTTTTTTTTTTACAATTGTTTTAAAGCCATTTCATGTTCCAGTTGTAAGATAAGGAAATGT GATAATAGCTGTTTCATCATTGTCTTCAGGAGAGCTTTCCAGAGTTGATCATTTCCCCTCATGGTACTCTGCTCA TGGAATGCAGTGGCGCAATCTTGGCTCACTTTAACCTCCACTTCCCTGGTTCAAGCAATTCCCCTGCCTTTGCCT

## 2349/2682 FIGURE 2135B

### 2350/2682 FIGURE 2136

MAARGRRAWLSVLLGLVLGFVLASRLVLPRASELKRAGPRRRASPEGCRSGQAAASQAGGARGDARGAQLWPPGS
DPDGGPRDRNFLFVGVMTAQKYLQTRAVAAYRTWSKTIPGKVQFFSSEGSDTSVPIPVVPLRGVDDSYPPQKKSF
MMLKYMHDHYLDKYEWFMRADDDVYIKGDRLENFLRSLNSSEPLFLGQTGLGTTEEMGKLALEPGENFCMGGPGV
IMSREVLRRMVPHIGKCLREMYTTHEDVEVGRCVRRFAGVQCVWSYEMQQLFYENYEQNKKGYIRDLHNSKIHQA
ITLHPNKNPPYQYRLHSYMLSRKISELRHRTIQLHREIVLMSKYSNTEIHKEDLQLGIPPSFMRFQPRQREEILE
WEFLTGKYLYSAVDGQPPRRGMDSAQREALDDIVMQVMEMINANAKTRGRIIDFKEIQYGYRRVNPMYGAEYILD
LLLLYKKHKGKKMTVPVRRHAYLQQTFSKIQFVEHEELDAQELAKRINQESGSLSFLSNSLKKLVPFQLPGSKSE
HKEPKDKKINILIPLSGRFDMFVRFMGNFEKTCLIPNQNVKLVVLLFNSDSNPDKAKQVELMTDYRIKYPKADMQ
ILPVSGEFSRALALEVGSSQFNNESLLFFCDVDLVFTTEFLQRCRANTVLGQQIYFPIIFSQYDPKIVYSGKVPS
DNHFAFTQKTGFWRNYGFGITCIYKGDLVRVGGFDVSIQGWGLEDVDLFNKVVQAGLKTFRSQEVGVVHVHHPVF
CDPNLDPKQYKMCLGSKASTYGSTQQLAEMWLEKNDPSYSKSSNNNGSVRTA

### 2351/2682 FIGURE 2137

ACAGGAGGAGACAGCCTCCCGGCCCGGGGAGGACAAGTCGCTGCCACCTTTGGCTGCCGACGTGATTCCCTGGGA CGGTCCGTTTCCTGCCGTCAACTGCCGGCCGAGTTGGGTCTCCGTGGTTCAGGCCGGCTCCCCCTTCCTGGTCTC CCTTCTCCCGCTGGGCCGGTTTATCGGGAGGAGATTGTCTTCCAGGGCTAGCAATTGGACTTTTGATGATGTTTG  ${\tt ACCCAGCGGCAGGAATAGCAGGCAACGTGATTTCAAAGCTGGGCTCAGCTC}{\tt ATG}{\tt TTTCTTCTCTCGTGTAATCGC}$ AAACTCCCAGGCAGGAACACCTTTTGCTGTGATGGCCGCGTCATGATGGCCCGGCAAAAGGGGCATTTTCTACCTG ACCCTTTTCCTCATCCTGGGGACATGTACACTCTTCTTCGCCTTTGAGTGCCGCTACCTGGCTGTTCAGCTGTCT CCTGCCATCCCTGTATTTGCTGCCATGCTCTTCCTTTTCTCCATGGCTACACTGTTGAGGACCAGCTTCAGTGAC CCTGGAGTGATTCCTCGGGCGCTACCAGATGAAGCAGCTTTCATAGAAATGGAGATAGAAGCTACCAATGGTGCG GTGCCGGGCTACCAGCGACCACCGCCTCGTATCAAGAATTTCCAGATAAACAACCAGATTGTGAAACTGAAATAC TGTTACACATGCAAGATCTTCCGGCCTCCCCGGGCCTCCCATTGCAGCATCTGTGACAACTGTGTGGAGCGCTTC GACCATCACTGCCCCTGGGTGGGGAATTGTGTTGGAAAGAGGAACTACCGCTACTTCTACCTCTTCATCCTTTCT  $\tt CTCTCCCTCACAATCTATGTCTTCGCCTTCAACATCGTCTATGTGGCCCTCAAATCTTTGAAAATTGGCTTC$ TTGGAGACATTGAAAGAAACTCCTGGAACTGTTCTAGAAGTCCTCATTTGCTTCTTTACACTCTGGTCCGTCGTG GGACTGACTGGATTTCATACTTTCCTCGTGGCTCTCAACCAGACAACCAATGAAGACATCAAAGGATCATGGACA GGGAAGAATCGCGTCCAGAATCCCTACAGCCATGGCAATATTGTGAAGAACTGCTGTGAAGTGCTGTGTGGCCCC TTGCCCCCCAGTGTGCTGGATCGAAGGGGTATTTTGCCACTGGAGGAAAGTGGAAGTCGACCTCCCAGTACTCAA GAGACCAGTAGCAGCCTCTTGCCACAGAGCCCAGCCCCACAGAACACCTGAACTCAAATGAGATGCCGGAGGAC AGCAGCACTCCCGAAGAGATGCCACCTCCAGAGCCCCCAGAGCCACCACAGGAGGCAGCTGAAGCTGAGAAGTAG

## 2352/2682 FIGURE 2138

MFLLSCNRKTHFGAGIPIMSVMVVRKKVTRKWEKLPGRNTFCCDGRVMMARQKGIFYLTLFLILGTCTLFFAFEC RYLAVQLSPAIPVFAAMLFLFSMATLLRTSFSDPGVIPRALPDEAAFIEMEIEATNGAVPGYQRPPPRIKNFQIN NQIVKLKYCYTCKIFRPPRASHCSICDNCVERFDHHCPWVGNCVGKRNYRYFYLFILSLSLLTIYVFAFNIVYVA LKSLKIGFLETLKETPGTVLEVLICFFTLWSVVGLTGFHTFLVALNQTTNEDIKGSWTGKNRVQNPYSHGNIVKN CCEVLCGPLPPSVLDRRGILPLEESGSRPPSTQETSSSLLPQSPAPTEHLNSNEMPEDSSTPEEMPPPEPPPQ EAAEAEK

## 2353/2682 FIGURE 2139

CTTTGTTTTGCTTCGAG<u>ATG</u>GCTGCGGGGATGTATTTGGAACATTATCTGGACAGTATTGAAAACCTTCCCTTTG AATTACAGAGAAACTTTCAGCTCATGAGGGACCTAGACCAAAGAACAGAGGACCTGAAGGCTGAAATTGACAAGT TGGCCACTGAGTATATGAGTAGTGCCCGCAGCCTGAGCTCCGAGGAAAAATTGGCCCTTCTCAAACAGATCCAGG AAGCCTATGGCAAGTGCAAGGAATTTGGTGACGACAAGGTGCAGCTTGCCATGCAGACCTATGAGATGGTGGACA AACACATTCGGCGGCTGGACACAGACCTGGCCCGTTTTGAGGCTGATCTCAAGGAGAAACAGATTGAGTCAAGTG ACTATGACAGCTCTTCCAGCAAAGGCAAAAAGAAAGGCCGGACTCAAAAGGAGAAAGCTGCTCGTGCTCGTT CCAAAGGGAAAAACTCGGATGAAGAAGCCCCCAAGACTGCCCAGAAGAAGTTAAAGCTCGTGCGCACAAGTCCTG AGTATGGGATGCCCTCAGTGACCTTTGGCAGTGTCCACCCCTCTGATGTGTTGGATATGCCTGTGGATCCCAACG AACCCACCTATTGCCTTTGTCACCAGGTCTCCTATGGAGAGATGATTGGCTGTGACAACCCTGATTGTTCCATTG AGTGGTTCCATTTTGCCTGTGTGGGGCTGACAACCAAGCCTCGGGGGAAATGGTTTTGCCCACGCTGCTCCCAAG  $\texttt{AACGGAAGAAA} \underline{\textbf{TAG}} \texttt{ATAAGGGCCTTGGATTCCAACACAGTTTCTTCCACATCCCCTGACTTGGGCTAGTGGG}$ TCTCCTTCAGCCCTCTCCTTCGGAGGGACGTGGTCTTGCCCACTGTCCTTTTGCCTCCATGCTGAGGTCGGTGCT GTATTTCAGAGGGAGGGTCCTTTTCATTCTCCTTGCTTTGTATTTAAGGACTGGGGCATAGCATGGGGGCAGTCC CCCAGACCTCTTCATTCCCCCTCCTGTGGTGAGGGCTAGGTGTGATCAACACTTTTCTTCTCCATTCCCTTCCTG CTTTTTCATGGTGGGGATCCACCAGGTCATCTAGCTCTGGCCCTAGTTGAAGGGCACCCCTTCCTCTGTGCCAA AAAAGCTATACATGTTGAAAAAAAAAA

## 2354/2682 FIGURE 2140

MAAGMYLEHYLDSIENLPFELQRNFQLMRDLDQRTEDLKAEIDKLATEYMSSARSLSSEEKLALLKQIQEAYGKC KEFGDDKVQLAMQTYEMVDKHIRRLDTDLARFEADLKEKQIESSDYDSSSSKGKKKGRTQKEKKAARARSKGKNS DEEAPKTAQKKLKLVRTSPEYGMPSVTFGSVHPSDVLDMPVDPNEPTYCLCHQVSYGEMIGCDNPDCSIEWFHFA CVGLTTKPRGKWFCPRCSQERKKK

### 2355/2682 FIGURE 2141

## 2356/2682 FIGURE 2142

 ${\tt MQYATGPLLKFQICVSXGYRRVFEEYMRVISQRYPDIRIEGENYLPQPIYRHIASFLSVFKLVLIGLIIVGKDPF} \\ {\tt AFFGMQAPSIWQWGQENKVYACMMVFFLSNMIENQCMSTGAFEITLNDVPVWSKLESGHLPSMQQLVQILDNEMK} \\ {\tt LNVHMDSIPHHRS} \\$ 

### 2357/2682 FIGURE 2143

CGGCCTTGTCAGCTCACAGCAGGCGTTAACAGCCTCTAATTGAGGAAACTGTGGCTGGACAGGTTGCAAGGCAGT TCTGCTCCCCATCGTCCTCTTGCTGACTGGGGACTGCTGAGCCCGTGCACGGCAGAGAGTCTGGTGGGGTGGAGG GGCTGGCCTGGCCCCTCTGTCCTGTGGAAATCCTGGGGGCAAGTGGTCACCCTCATACTCCTCCTGCTCCTCAAGG TGTATCAGGGCAAAGGATGCCAGGGATCAGCTGACCATGTGGTTAGCATCTCGGGAGTGCCTCTTCAGTTACAAC CAAACAGCATACAGACGAAGGTTGACAGCATTGCATGGAAGAAGTTGCTGCCCTCACAAAATGGATTTCATCACA TATTGAAGTGGGAGAATGGCTCTTTGCCTTCCAATACTTCCAATGATAGATTCAGTTTTATAGTCAAGAACTTGA GTCTTCTCATCAAGGCAGCTCAGCAGGACAGTGGCCTCTACTGCCTGGAGGTCACCAGTATATCTGGAAAAG TTCAGACAGCCACGTTCCAGGTTTTTGTATTTGATAAAGTTGAGAAACCCCGCCTACAGGGGCAGGGGAAGATCC TGGACAGAGGGAGATGCCAAGTGGCTCTGTCTTGCTTGGTCTCCAGGGATGGCAATGTGTCCTATGCTTGGTACA CCCATCAGGAATTCAGATTTTGGCCGTTTTTGGTGATCATCGTGATTCTAAGCGCACTGTTCCTTGGCACCCTTG CCTGCTTCTGTGTGTGGAGGAGAAGAGGAAGGAGAAGCAGTCAGAGACCAGTCCCAAGGAATTTTTGACAATTT ACGAAGATGTCAAGGATCTGAAAACCAGGAGAAATCACGAGCAGGAGCAGACTTTTCCTGGAGGGGGGAGCACCA TCTACTCTATGATCCAGTCCCAGTCTTCTGCTCCCACGTCACAAGAACCTGCATATACATTATATTCATTAATTC GAAAGAGTCAACCTAAAGCCCAGAACCCTGCTCGATTGAGCCGCAAAGAGCTGGAGAACTTTGATGTTTATTCC ${f T}$ ACTTGCTGCAGCAATTCTCACCTTTCTTGCACATCAGCATCTGCTTTGGGAATTGGCACAGTGGATGACGGCACA GGAGTCTCTATAGAACACTTCCTAGTCTGGAGAGGATATGGAAATTTGTTCTTGTTCTATATTTTGTTTTGAAAA TGATGTCTAACAACCATGATAAGAGCAAGGCTGTTAAATAATATCTTCCAATTTACAGATCAGACATGAATGGGT GGAGGGGTTAGGTTGTTCACAAAAGGCCACATTCCAAGTATTTGTAATCTAGAAAGTGTTATGTAAGTGATGTTA TTAGCATCGAGATTCCCTCCACCTGATTTTCAAGCTGTCACTTGTTTCCTTTTCTCCCCTCTCTGGGTTGACTGC CCAGGGCCTGGGCTTTACTCAATTGCAGAGAAAAAACTTTCTCCCTGCATCTCATACCTTTACCTCTGGCCAGTT AGAGCACATGCTGACCTGATAACTGGGGTGTTGAGACCAGCTTTGTCCATGGTATGATGTTTGATTTATGAAGAC GCATTGTTAGAAATCCATTTGGCTTCTTCATAGAAGTGGCTTCCCAGAGGAAGAGGCCTCTCAGAAACCATGTTC GAATGAGGCAGTTGGAATCTAGACACTATGCTGGGTTCCCTGAGTCGTCAGGCCAGACATTTCAACAAGGCTGTG GGGAGCAGGGCTGTGACTCTGGCTGAGCCCAGGAAAGCGACAAGGGTGAACTGGGAGAGGACTTACTCAGAGACC CCAACAGGTGATACTGCACAAAGCCTGGTTCTTCAATTTTCCTACCCTGTATCTAACATAGGAGTTTCATATAAA ACGGTGATATCATGCAGATGCAGTCTGAATTCCTTGCCTG

### 2358/2682 FIGURE 2144

 $\label{thm:constraint} $$\operatorname{MLGQVVTLILLLLKVYQGKGCQGSADHVVSISGVPLQLQPNSIQTKVDSIAWKKLLPSQNGFHHILKWENGSLP}$$ SNTSNDRFSFIVKNLSLLIKAAQQQDSGLYCLEVTSISGKVQTATFQVFVFDKVEKPRLQGQGKILDRGRCQVAL SCLVSRDGNVSYAWYRGSKLIQTAGNLTYLDEEVDINGTHTYTCNVSNPVSWESHTLNLTQDCQNAHQEFRFWPF LVIIVILSALFLGTLACFCVWRRKRKEKQSETSPKEFLTIYEDVKDLKTRNHEQEQTFPGGGSTIYSMIQSQSS APTSQEPAYTLYSLIQPSRKSGSRKRNHSPSFNSTIYEVIGKSQPKAQNPARLSRKELENFDVYS$ 

### 2359/2682 FIGURE 2145A

 ${\tt GGCCCGGCTGCGAGGAGGAGGCGGCGGCGCGCGCGCGAGGAGGATG}{\tt TACTTGGTGGCGGGGGACAGGGGGTTGGCCGGC}$ TGCGGGCACCTCCTGGTCTCGCTGCTGGGGCTGCTGCTGCTGCGCGCGCTCCGGCACCCGGGCGCTGGTCTGC TGCTACACGTGCGCCAGCCAGAGGAACGAGAGCTGCGGCGCACCTTCGGGATTTACGGAACCTGCGACCGGGGG CTGCGTTGTGTCATCCGCCCCCCGCTCAATGGCGACTCCCTCACCGAGTACGAAGCGGGCGTTTGCGAAGATGAG GGGAAATGTGAATGTAACACCATTCGAACCTGCAGCAATCCCTTTGAGTTTCCAAGTCAGGATATGTGCCTTTCA GCTTTAAAGAGAATTGAAGAAGAGAAGCCAGATTGCTCCAAGGCCCGCTGTGAAGTCCAGTTCTCTCCACGTTGT CCTGAAGATTCTGTTCTGATCGAGGGTTATGCTCCTCCTGGGGAGTGCTGTCCCTTACCCAGCCGCTGCGTGTGC AACCCCGCAGGCTGTCTGCGCAAAGTCTGCCAGCCGGGAAACCTGAACATACTAGTGTCAAAAAGCCTCAGGGAAG CCGGGAGAGTGCTGTGACCTCTATGAGTGCAAACCAGTTTTCGGCGTGGACTGCAGGACTGTGGAATGCCCTCCT GTTCAGCAGACCGCGTGTCCCCCGGACAGCTATGAAACTCAAGTCAGACTAACTGCAGATGGTTGCTGTACTTTG CCAACAAGATGCGAGTGTCTCTCTGGCTTATGTGGTTTCCCCGTGTGTGAGGTGGGATCCACTCCCCGCATAGTC TTTAACAATGTGGAATATTATGATGGAGACATGTTTCGAATGGACAACTGTCGGTTCTGTCGATGCCAAGGGGGC GTTGCCATCTGCTTCACTGCCCAGTGTGGTGAGATAAACTGCGAGAGGTACTACGTGCCCGAAGGAGAGTGCTGC GGAGACCGGTGGCGGGAAGACGACTGCACATTCTGCCAGTGCGTCAACGGTGAACGCCACTGCGTTGCGACCGTC ACAGTTGATCCACCTGCATGTGGGGAGTTATCAAACTGCACTCTGACAGGGAAGGACTGCATTAATGGTTTCAAA CGCGATCACAATGGTTGTCGGACCTGTCAGTGCATAAACACCGAGGAACTATGTTCAGAACGTAAACAAGGCTGC ACCTTGAACTGTCCCTTCGGTTTCCTTACTGATGCCCAAAACTGTGAGATCTGTGAGTGCCGCCCAAGGCCCAAG AAGTGCAGACCCATAATCTGTGACAAGTATTGTCCACTTGGATTGCTGAAGAATAAGCACGGCTGTGACATCTGT CGCTGTAAGAAATGTCCAGAGCTCTCATGCAGTAAGATCTGCCCCTTGGGTTTCCAGCAGGACAGTCACGGCTGT  $\verb|CTTATCTGCAAGTGCAGAGAGGCCTCTGCTTCAGCTGGGCCACCCATCCTGTCGGGCACTTGTCTCACCGTGGAT| \\$ GGTCATCATCATAAAAATGAGGAGGAGCTGGCACGATGGGTGCCGGGAATGCTACTGTCTCAATGGACGGGAAATG TGTGCCCTGATCACCTGCCCGGTGCCTGCCTGTGGCAACCCCACCATTCACCCTGGACAGTGCTGCCCATCATGT GTGGAAGGAGAAACGTGGAACATTGACTCCTGTACTCAGTGCACCTGCCACAGCGGACGGGTGCTGTGAGACA GAGGTGTGCCCACCGCTGCTCTGCCAGAACCCCTCACGCACCCAGGATTCCTGCTGCCCACAGTGTACAGATCAA CCTTTTCGGCCTTCCTTGTCCCGCAATAACAGCGTACCTAATTACTGCAAAAATGATGAAGGGGATATATTCCTG GCAGCTGAGTCCTGGAAGCCTGACGTTTGTACCAGCTGCATCTGCATTGATAGCGTAATTAGCTGTTTCTCTGAG TCCTGCCCTTCTGTATCCTGTGAAAGACCTGTCTTGAGAAAAGGCCAGTGTTGTCCCTACTGCATAGAAGACACA ATTCCAAAGAAGGTGGTGTGCCACTTCAGTGGGAAGGCCTATGCCGACGAGGAGCGGTGGGACCTTGACAGCTGC ACCCACTGCTACTGCCTGCAGGGCCAGACCCTCTGCTCGACCGTCAGCTGCCCCCCTCTGCCCTGTGTTGAGCCC AAGACAAACCATCGAGGAGAGGTTGACCTGGAGGTTCCCCTGTGGCCCCACGCCTAGTGAAAATGATATCGTCCAT CTCCCTAGAGATATGGGTCACCTCCAGGTAGATTACAGAGATAACAGGCTGCACCCAAGTGAAGATTCTTCACTG AAGAAACAGTGGATACCACTGCTTTGCTGGTATCGAACACCAACTAAGCCTTCTTCCTTAAATAATCAGCTAGTA TCTGTGGACTGCAAGAAAGGAACCAGAGTCCAGGTGGACAGTTCCCAGAGAATGCTAAGAATTGCAGAACCAGAT GCAAGATTCAGTGGCTTCTACAGCATGCAAAAACAGAACCATCTACAGGCAGACAATTTCTACCAAACAGTG**TGA** 

AGAAAGGCAACTAGGATGAGGTTTCAAAAGACGGAAGACGACTAAATCTGCTCTAAAAAGTAAACTAGAATTTGT
GCACTTGCTTAGTGGATTGTATTGGATTGTGACTTGATGTACAGCGCTAAGACCTTACTGGGATGGGCTCTGTCT
ACAGCAATGTGCAGAACAAGCATTCCCACTTTTCCTCAAGATAACTGACCAAGTGTTTTCTTAGAACCAAAGTTT
TTAAAGTTGCTAAGATATATTTGCCTGTAAGATAGCTGTAGAGATATTTGGGGTGGGGACAGTGAGTTTGGATGG
GGAAATGGGTGGGAGGGTGGTGTTGGGAAGAAAAATTGGTCAGCTTGGCTCGGGGAGAAACCTGGTAACATAAAA
GCAGTTCAGTGGCCCAGAGGTTATTTTTTTCCTATTGCTCTGAAGACTGCACTGGTTGCTGCAAAGCTCAGGCCT

### 2360/2682 FIGURE 2145B

GAATGAGCAGGAAACAAAAAAAGGCCTTGCGACCCAGCTGCCATAACCACCTTAGAACTACCAGACGAGCACATCA GAACCCTTTGACAGCCATCCCAGGTCTAAAGCCACAAGTTTCTTTTCTATACAGTCACAACTGCAGTAGGCAGTG AGGAAGCCAGAGAAATGCGATAGCGGCATTTCTCTAAAGCGGGTTATTAAGGATATATACAGTTACACTTTTTGC TGCTTTTATTTTCTTCCAAGCCAATCAATCAGCCAGTTCCTAGCAGAGTCAGCACATGAACAAGATCTAAGTCAT TTGAAGCTCTAGCTTAAGAAGAAACTTTTTTTAAAAAGACTGTTTGGGGATTCTTTTTCCTTATTATATACTGAT CCTCTTTAAACTTTAGCAATTATAGGAGTATTTATGTAACTATCTTATGCTTCAAAAAAACAAAAGTATTTGTGTG CATGTGTATATATATATATATATACATATATATTTATACACATACAATTTATGTTTTCCTGTTGAATGTATTTT TATGAGATTTTAACCAGAACAAAGGCAGATAAACAGGCATTCCATAGCAGTGCTTTTGATCACTTACAAATTTTT TGTGTGTGTGTGTGCGCGCGCACGCCTTGAGCAGTCAGCATTGCACCTGCTATGGAGAAGGGTATTCCT TTATTAAAATCTTCCTCATTTGGATTTGCTTTCAGTTGGTTTTCAATTTGCTCACTGGCCAGAGACATTGATGGC AACTTTTCAAACAGCCCTTAGCACTTTTATACTAATTAACCCATTTGTGCATTGAGTTTTCTTTTAAAAATGCTT GTTGTGAAAGACACAGATACCCAGTATGCTTAACGTGAAAAGAAAATGTGTTCTGTTTTGTAAAGGAACTTTCAA ATTAATCTGAAGATTAACCATTTTTTTGTCTTAGAATATCAAAAAGAAAAAGAAAAAGGTGTTCTAGCTGTTTGC TTTATCAAAAAAATTGTAGATGCTTGCTTTTTGTTTTTCAATCATGGCCATATTATGAAAATACTAACAGGAT ATAGGACAAGGTGTAAATTTTTTTTTTTTTTTTTAAAGATATGATTTATCCTGAGTGCTGTATCTATTACTCTT TTACTTTGGTTCCTGTTGTGCTCTTGTAAAAGAAAAATATAATTTCCTGAAGAATAAAATAGATATATGGCACTT GGAGTGCATCATAGTTCTACAGTTTGTTTTTGTTTTCTTCAAAAAAGCTGTAAGAGAATTATCTGCAACTTGATT 

## 2361/2682 FIGURE 2146

MYLVAGDRGLAGCGHLLVSLLGLLLLARSGTRALVCLPCDESKCEEPRNCPGSIVQGVCGCCYTCASQRNESCG
GTFGIYGTCDRGLRCVIRPPLNGDSLTEYEAGVCEDENWTDDQLLGFKPCNENLIAGCNIINGKCECNTIRTCSN
PFEFPSQDMCLSALKRIEEEKPDCSKARCEVQFSPRCPEDSVLIEGYAPPGECCPLPSRCVCNPAGCLRKVCQPG
NLNILVSKASGKPGECCDLYECKPVFGVDCRTVECPPVQQTACPPDSYETQVRLTADGCCTLPTRCECLSGLCGF
PVCEVGSTPRIVSRGDGTPGKCCDVFECVNDTKPACVFNNVEYYDGDMFRMDNCRFCRCQGGVAICFTAQCGEIN
CERYYVPEGECCPVCEDPVYPFNNPAGCYANGLILAHGDRWREDDCTFCQCVNGERHCVATVCGQTCTNPVKVPG
ECCPVCEEPTIITVDPPACGELSNCTLTGKDCINGFKRDHNGCRTCQCINTEELCSERKQGCTLNCPFGFLTDAQ
NCEICECRPRPKKCRPIICDKYCPLGLLKNKHGCDICRCKKCPELSCSKICPLGFQQDSHGCLICKCREASASAG
PPILSGTCLTVDGHHHKNEESWHDGCRECYCLNGREMCALITCPVPACGNPTIHPGQCCPSCADDFVVQKPELST
PSICHAPGGEYFVEGETWNIDSCTQCTCHSGRVLCETEVCPPLLCQNPSRTQDSCCPQCTDQPFRPSLSRNNSVP
NYCKNDEGDIFLAAESWKPDVCTSCICIDSVISCFSESCPSVSCERPVLRKGQCCPYCIEDTIPKKVVCHFSGKA
YADEERWDLDSCTHCYCLQGQTLCSTVSCPPLPCVEPINVEGSCCPMCPEMYVPEPTNIPIEKTNHRGEVDLEVP
LWPTPSENDIVHLPRDMGHLQVDYRDNRLHPSEDSSLDSIASVVVPIIICLSIIIAFLFINQKKQWIPLLCWYRT
PTKPSSLNNQLVSVDCKKGTRVQVDSSQRMLRIAEPDARFSGFYSMQKQNHLQADNFYQTV

### 2362/2682 FIGURE 2147

# 2363/2682 FIGURE 2148

MLGSRAVMLLLLLPWTAQGRAVPGGSSPAWTQCQQLSQKLCTLAWSAHPLVGHMDLREEGDEETTNDVPHIQCGD GCDPQGLRDNSQFCLQRIHQGLIFYEKLLGSDIFTGEPSLLPDSPVGQLHASLLGLSQLLQPEGHHWETQQIPSL SPSQPWQRLLLRFKILRSLQAFVAVAARVFAHGAATLSP

## 2364/2682 FIGURE 2149

## 2365/2682 FIGURE 2150

MGLSIFLLCVLGLSQAATPKIFNGTECGRNSQPWQVGLFEGTSLRCGGVLIDHRWVLTAAHCSGSRYWVRLGEH SLSQLDWTEQIRHSGFSVTHPGYLGASTSHEHDLRLLRLRLPVRVTSSVQPLPLPNDCATAGTECHVSGWGITNH PRNPFPDLLQCLNLSIVSHATCHGVYPGRITSNMVCAGGVPGQDACQGDSGGPLVCGGVLQGLVSWGSVGPCGQD GIPGVYTYICNSTLVGLGTSWNFNSCQPF

### 2366/2682 FIGURE 2151

GGGATTTTTAAAAAATCAAAATCCAACTTTTTGAGTTTTCGTTGTCATTGCTCTTATCTTTCCTGAGTC ACTTCCCATTTTCCAAACTCAGCAACCCCAGTTTGCGAGTCTGGTTTCATGAACCTTTGTAAGGTGTTTGGTGCG GTCACRGTGTATACTTGCCGTGTAGTATTTGACTCAGCGCGATCTGCCTTGAGTCATTTTACCGCGGCCATTTAC TATAAGGAATCGGGAGAGTAGATAGGAGTGAAGCATTTGGCAGCGTAAAGAAGCTTGGCTTAGCTTTAATGGATT AGGGAGAGATTGCTATCTAGCATTATTACATGTTATTGTTCTCTTTGCTATTTTATACACCTAGAACAACCTTTC CCTCGGGGTTAACAACATCTTCAACTCTGTTTTCTGTATGGCTCCTGACTCTTACCTTTGTTTTAGGAGGCTTC CCTCTTCAGAGGAAACTGGGAGAAGCCAATTTCCACTGCTTCTTTTTCCTGTGCCTTTTTAACACTCAAACCCAG AACACTTAATCCTCTGCAGCTCGTGCAAAAATTCAGTCTGTAATTTAAAATGTGTGCACGGTACACTGCTGACCA TGGGCATGTCTATTGTTTGTATCTGTAATGTGTATGTCCATTTCAGTGTTGTCTGTTTTAGTATGCAGGTGATAG  ${\tt ACTAGAGAACAAGACCTCTGTCTCCGTAGCATCCTGGAGCAGTCTGAATGCCAGA} \underline{{\tt ATC}}{\tt GATAACCGTTTTGCTAC}$ AGCATTTGTAATTGCTTGTGTGTTAGCCTCATTTCCACCATCTACATGGCAGCCTCCATTGGCACAGACTTCTG GTATGAATATCGAAGTCCAGTTCAAGAAAATTCCAGTGATTTGAATAAAAGCATCTGGGATGAATTCATTAGTGA TGAGGCAGATGAAAAGACTTATAATGATGCACTTTTTCGATACAATGGCACAGTGGGATTGTGGAGACGGTGTAT CACCATACCCAAAAACATGCATTGGTATAGCCCACCAGAAAGGACAGAGTCATTTGATGTGGTCACAAAATGTGT GAGTTTCACACTAACTGAGCAGTTCATGGAGAAATTTGTTGATCCCGGAAACCACAATAGCGGGATTGATCTCCT TAGGACCTATCTTTGGCGTTGCCAGTTCCTTTTACCTTTTGTGAGTTTAGGTTTGATGTGCTTTGGGGCTTTGAT  $\tt CGGACTTTGTGCTTGCATTTGCCGAAGCTTATATCCCACCATTGCCACGGGCATTCTCCATCTCCTTGCAGGTCT$ GTGTACACTGGGCTCAGTAAGTTGTTATGTTGCTGGAATTGAACTACTCCACCAGAAACTAGAGCTCCCTGACAA TGTATCCGGTGAATTTGGATGGTCCTTCTGCCTGGCTTGTGTCTCTCCCTTACAGTTCATGGCTTCTGCTCT  $\tt CTTCATCTGGGCTGCTCACACCGGAAAGAGTACACCTTAATGAAGGCATATCGTGTGGCA{\color{red}{\textbf{TGA}}}GCAAGAAA$ CTGCCTGCTTTACAATTGCCATTTTTATTTTTTTAAAATAATACTGATATTTTCCCCACCTCTCAATTGTTTTTA ATTTTTATTTGTGGATATACCATTTTATTATGAAAATCTATTTTATTATACACATTCACCACTAAATACACACT TAATACCACTAAAATTTATGTGGTTTACTTTAAGCGATGCCATCTTTCAAATAAACTAATCTAGGTCTAGACAGA CTAATGTCTGTTAGACTTTCAGTAAAACTAAAGTAACTGTATCTGTTCAACTAAAAACTCTATATTAGTTTCTT TGGGAAACCTCTCATCGTCAAAACTTTATGTTCACTTTGCTGTTGTAGATAGCCAGTCAACCAGCAGTATTAGTG CTGTTTTCAAAGATTTAAGCTCTATAAAATTGGGAAATTATCTAAGATCATTTTCCCTAAGCATTGACACATAGC TACTTGAAATTTTAACTTTGTAACTGCAAGAATTCCAGTTCAGCCGGGCGAGGATTAGTATTATTTTTAACTCTC CTATAAAGAACGTTTCACCATAATGACCCTCCAGAGCTGGGAAACCTACCACAAGATCTAAAGTTCTGGCTGTCC ATTAACCTCCAACTATGGTCTTTATTTCTTGTGGTAATATGATGTGCCTTTCCTTGCCTAAATCCCTTCCTGGTG TGTATCAACATTATTTAATGTCTTCTAATTCAGTCATTTTTTTATAAGTATGTCTATAAACATTGAACTTTAAAA CTCAATGTCTTTTTTAAAAAATAAAATTAAAAATGAAAAGAGAAA

# 2367/2682 FIGURE 2152

MDNRFATAFVIACVLSLISTIYMAASIGTDFWYEYRSPVQENSSDLNKSIWDEFISDEADEKTYNDALFRYNGTV GLWRRCITIPKNMHWYSPPERTESFDVVTKCVSFTLTEQFMEKFVDPGNHNSGIDLLRTYLWRCQFLLPFVSLGL MCFGALIGLCACICRSLYPTIATGILHLLAGLCTLGSVSCYVAGIELLHQKLELPDNVSGEFGWSFCLACVSAPL QFMASALFIWAAHTNRKEYTLMKAYRVA

### 2368/2682 FIGURE 2153

CAATGGCTTCAGCAGTGCTCCCAGTTCCTAGGACTGTACAAGAAATCTGGAAAACTTGTATTCTTAGGTTTGGA TAATGCAGGCAAAACCACTCTTCTTCACATGCTCAAAGATGACAGATTGGGCCAACATGTTCCAACACTACATCC CGTTTGGAAAAATTATCTCCCAGCAATTAATGGGATTGTCTTTCTGGTGGACTGTGCAGATCATTCTCGCCTCGT GGAATCCAAAGTTGAGCTTAATGCTTTAATGACTGATGAAACAATATCCAATGTGCCAATCCTTATCTTGGGTAA CAAAATTGACAGAACAGATGCAATCAGTGAAGAAAAACTCCGTGAGATATTTGGGCTTTATGGACAGACCACAGG AAAGGGGAATGTGACCCTGAAGGAGCTGAATGCTCGCCCCATGGAAGTGTTCATGTGCAGTGTGCTCAAGAGGCA  ${\tt AGGTTACGGCGAGGGTTTCCGCTGGCTCTCCCAGTATATTGAC} {\color{red}{\bf TGA}} {\tt TGTTTGGACGGTGAAAATAAAAGAGTTTT}$ ACTTCTCTGGACTGATCCTATTCACAGCTTCCTCATGAACTTTTCTAATAGAACAAGGAAAGCTCTCCAACCATG TCTGGCGTTGAGAAGCCAAGAGTCTCTGTCAACTCTCTCATTGCCCAGTGGTGACATGTGCTCTTCTCCACACTG TTGGGAGGTAATGCTGCCCCACGTGCTGGTGCAGGTCAGTATCCTGGGACTTGGAAGCTGGCAGGATTTGCCGGG ATTCTATTTTTTAAAGAAAGCGTTGTTAATGTAATTGGTATCCCTCCTAACTTTTTGAGTTCACAATTTACTTGG ATGGAGGCCAGAGCTCATTTGGGTAAACTTACTCCTGCTGAGTTAGCAGGTTGGTGAGAGAAGCTCCCCTGAGCT  ${\tt CACCTGTCTCTGACTGCCTTGGAGTAGGTGGCATAACCTTGTGCACAGAGAACTAGAAAAGGGGCAGAACCCCC}$ GGCCTTGCAGTTGTGGCAGGTTTCCACTGTGGTAAGCTAGGTTCATTCCTCATCAAGGAATGTGTAGCAGATTGT TCACTGTGGAGGAGTTAATTATAGAATGGGTTATTGTTGTTATTCTTACTCATGAAGTTACAGATTTTAGCCAGT GACTTTGACCTCATAAAAGAGTTGAGAACATCTCTCGTGTCACATACTGCAGGTGCATCAGTTACTTTTGCACAG ATTCTGGGGGACATTTTTCTGAATAGGAAGACAGGACAAAGTTAACAGCTTAAGGGCTCTTAATTCTGTGAGTTG AGGACTTAAAAGTATTGTAGCATTTGTTTGGATCCATGAAAAATGTATTCAGTGGGCTTTAAAATTTCCATTTGC CATTGCAGAAATAAGCTAGGGAAACACTAACCCAAAAACTTTCTGTAGAGCTGTTCCTTTGGAGGCAGCATCACT TATTGGCAGTAAAGACTCAGTATAAAAGCACCAGCATCCCTACTTGGGTGATGGGGATTAATTTTATAGCATTCC ATTTTCCTAGTGCCACATGTGAAATTGGATTTTGATGATCTTAATCTATATTCTACCCTTATAATAAAAAGATCAA AAGATATATCTCCTATGAACAGATTGGAGATAGGAGATGAAAAGTTGGGAGGATGTCTTTATTCTAATGTGAGGG TAGGGAAAATGTGGATAACATTACTGGGGTGAAGGAGGCATTGTTCTTTAGTTGGAGTTCTCATTTTTATTCTCC AGTACTGACTTGTGGGGAAAGCATACTTTTTCACTGCCAGGTACTGAATGCAGAGGCTCAGTGAAGTATATATGT GGGAAGTGCATGCATTTCGTTTATTAGCAAACATAGCTGGATTAAGACAAAGTTGTTGGTTTGGAAAGGGGGTTAA AGCCTTAAGTGAACAAATCTAGCTAACAGTGAATGAACTAGGTAATATAACTTGCATATTTTTAATTTCCTTTGG TTAAAGGTCCCCCATACTTCTCTGTTCGGAGACATGAGAAGTATGATTACTTCAGTGTTAGTTTTCTTAATTTTT TTTTTCCCCTATTTGTCCCTTGTCACTTTGTTGCAAGCTAGAAATCTGTGGGTTATACATAGGGCAGCTCTTTGT GAAAGTGGTTTATTCCACTGGAGAAAGGGGATTGAAAATCAGTTAGAACCAATGTATTTCTTGCCCCACGGAACA CTATTCCTATAAGATAGCTGAAAGAAGCTGCTGTGAGGAGCTCAGCTCCAAACACAGGATCAGCACCTTGTATAG GAATTCCCATGAATTATGACTTCTCATTCTGTTTTATCAGAGTGCATATATGTCCTACTTCAGGAAAAGTAAAAC AAA

# 2369/2682 FIGURE 2154

 ${\tt MSFIFEWIYNGFSSVLQFLGLYKKSGKLVFLGLDNAGKTTLLHMLKDDRLGQHVPTLHPTSEELTIAGMTFTTFD}\\ {\tt LGGHEQARRVWKNYLPAINGIVFLVDCADHSRLVESKVELNALMTDETISNVPILILGNKIDRTDAISEEKLREIFGLYGQTTGKGNVTLKELNARPMEVFMCSVLKRQGYGEGFRWLSQYID$